

**EFFECT OF SELECTED FIRM SPECIFIC FACTORS ON FINANCIAL
PERFORMANCE OF REAL ESTATE FIRMS LISTED AT THE NAIROBI
SECURITIES EXCHANGE IN KENYA**

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**A Research Project Submitted to the Graduate School in Partial Fulfillment of the
Requirements for the Degree of Master of Business Administration of Egerton
University**

EGERTON UNIVERSITY

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DECLARATION AND RECOMMENDATION

Declaration

I the undersigned declare that this research project is my original work and has not been submitted to any institution of higher learning other than Egerton University for academic credit.

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Recommendation

This Research Project has been submitted with my approval as the University Supervisor.

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DEDICATION

I dedicate this project to the Almighty God who enabled me to complete this journey; and my husband Joseph Kambo who has been a great support; and my mother Teresiah Shushula for encouraging me throughout the period of my study.

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The completion of this thesis would not have been successful without the inspiration and support of a number of people. I would first like to express my gratitude to the Almighty God for enabling me to complete this thesis. It has not been easy and if it was not for the grace of God I would not have made it. Secondly, I thank my family for always encouraging me and never allowing me to settle for less than the best. They made me believe I could make it. Thirdly, special thanks go to my supervisor for his advice, guidance and for continuously evaluating and supervising my work. Fourthly, I would like to thank Faculty members at Egerton University, School of Business and my friends, Dr. Robert Mugo and Dr. Mary Bosire for their advice and encouragement. Fifthly, I am grateful to my husband Joseph Kambo and children: Clement and Lovely for their understanding and support during my studies. Last but not least, I thank the University for giving me the opportunity, time and resources to study.

ABSTRACT

This study sought to find the effect of selected firm specific factors on real estate firm financial performance. Financial performance was measured by return on assets (ROA) and return on equity (ROE). The objectives of the study were to; determine the effect of liquidity on financial performance; assess the effect of leverage on financial performance; and examine the effect of firm size on financial. The study was based on the Trade-off theory, Shiftable theory and Liquidity preference theory. The study used descriptive survey research design in an attempt to investigate the effect of selected firm specific factors on firm financial performance. The population of this study comprised the five (5) real estate firms listed under the investment subsector of the Nairobi Securities Exchange (NSE). The study used data covering a period of ten years from 2008 to 2017. The data was collected from published audited financial annual reports of the four (4) real estate firms listed in the Nairobi Securities Exchange. One was not studied due to unavailability of financial statements for the whole period of the study. The secondary data was collected using a data collection sheet. To describe profiles of the firms and research variables, means, standard deviations and coefficient of variation were used; and Pearson's correlation was used to examine relationships. The diagnostic tests done were normality and autocorrelation tests. The researcher used SPSS software to assist in analyzing the data. The results revealed significant negative relationship between liquidity and financial performance. The results also showed insignificant positive relationship between leverage and financial performance. The results also showed insignificant positive relationship between firm size and financial performance. Further, the results evidenced that all the variables combined had a statistically significant effect on the financial performance. The study recommends further research on other firm specific factors not included in the study to determine whether they have a significant effect on financial performance of real estate in Kenya or not.

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LIST OF ABBREVIATIONS/ACRONYMS

AAK:	Architectural Association of Kenya
AIMS:	Alternative Investments Market Segment
CMA:	Capital Markets Authority
ETFs:	Exchange Traded Funds
FISMS:	Fixed Income Securities Market Segment
KFPGRI:	Knight Frank's Prime Global Rental Index
MIMS:	Main Investments Market Segment
NSE:	Nairobi Securities Exchange
PIRI:	Prime International Residential Index
ROA:	Return on Assets
ROE:	Return on Equity
S&L:	Savings and Loans Kenya Ltd
SPSS:	Statistical Package for Social Sciences
TGL:	Thika Greens Limited
US:	United State

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Real estate development has become a significant issue and an emerging question in the minds of Kenyans is how the housing situation will look like in the future. Real estate is most likely to be an important engine of economic growth and will spur the interest of key investors. Employees of many companies setting up offices in Kenya are anticipated to cause a great demand for housing according to Architectural Association of Kenya (Architectural Association of Kenya, 2011). It's unlucky that this private sector is driven by profit to provide housing for the upper-middle and upper-income households, which has in turn led to rapid increase in the number of slums and other informal settlements that provide housing for poor dwellers (UN-Habitat report, 2011).

Generally all over the world real estate prices have been escalating. This can be seen as in the case of the UK whose prices have been rising, but buying property remains 13 per cent more cost-effective than renting. Since the inception of the UK derivative market, growth in the real estate market has made tremendous growth (Zoopla, 2012). UN-Habitat (2011) shows that the real estate development in Africa's most emerging economies is placed between a rock and a hard place resulting from the lack of adequately finance urban shelter, not to mention huge demand for housing.

To show how property prices have increased in Kenya, data by property index and management firm Hass Consult (2012) has explained that the average worth of a property in Nairobi, in the year 2000 was to the tune of sh7 million and in the year 2007 the exactly similar property was at an average of sh24 million this explains clearly that Property values have gone up 3.38 times since 2000. As of 2012, Kenyan Population growth is roughly calculated to be at 4.2% per annum. According to this growth and the rate of people moving from the rural to urban areas, the yearly increase in demand for housing in Kenya is of 206,000 units' annually and of this 82,000 is in urban areas. In 2011, the ministry of housing estimated that the construction of houses in the market attained was 50,000 creating a deficit of 156,000 houses which builds on to the 2 Million units existing backlog. In 2012, it was roughly calculated that another 85,000 units were to increase that year's backlog (CAHF 2011; CAHF 2012).

In the recent past property prices have been on the increase raising the question as to whether this status will hold even in the long run. Property consultants Knight Frank (2013) have explained that Nairobi's elite suburbs' rent rose by the greatest margins beating 15 other cities in Africa, Asia, Middle East and Europe. This is due to the fact that Nairobi is a regional hub and attracts many transnational corporations who are causing the rent to escalate. These multi-nationals include Nestle, Google, General Electric, Tullow, Pepsi, Bank of India, HSBC and Foton Automobiles according to Knight Frank's Prime Global Rental Index (KFPGRI, 2013). According to the index rent rose as follows; Nairobi 17.9 %, Dubai 14.3%, and Beijing 8.5 %. Overall worldwide, rent escalated by an average of 5.1% in 2012 which shows the Nairobi rate of rent increase was more than three times the global average (KFPGRI, 2013) during the same period the rate of interest rates kept on fluctuating.

1.1.1 Financial Performance

Financial performance is the ability of a firm to efficiently and effectively use its resources with the intention of achieving and accomplishing the firm's objectives and goals. It can also be defined as the firm's capacity to operate with minimal wastages, maximize profits, achieve growth and continue to exist in the long run. Financial performance is the process of determining the outcome of a firm's policies and operations in financial terms. It indicates the financial position of a firm by identifying relationships between the items of the financial position and income statement. Profitability, return on equity and liquidity ratios among others gives valuable tools to stakeholders to determine the past and present financial performance of a firm (Erasmus, 2008). According to Barbosa and Louri (2005), the evaluation of financial performance of a firm is determined using the return on investment, residual income, earnings per share, dividend yield, price/earnings ratio, growth in sales and market capitalization. The assessment of performance is subject to the information introduced in the measurement system and the instruments operated. The long established types of indicators used in the process of financial analysis have been the return on investment, leverage, capital efficiency, liquidity, cash flow, inventory turnover and receivable turnover ratio. Over and above these factors are the modern value creation indicators as indicated by Vernimmen (2009), earnings per share, Return On Assets (ROA) and Return On Equity (ROE), economic value added (EVA), Cash Flow Return on Investment (CFROI) and Net Present Value (NPV).

Currently, performance is determined using value creation, clearly explained under the goal of sustainable development (Tudose, 2012). Aftab (2012) assert that a firm's performance can be measured in terms of its profitability and market performance. Typically, profitability is measured in terms of return on the capital invested in the business or return on the revenues generated during a given period. On the other hand, market performance is measured in terms of market indicators such as share price and dividend yield ratio. There are various measures of financial performance. For example return on sales (ROS) explains how much a firm earns in relation to the sales its making, return on assets (ROA) shows the ability of a firm to efficiently use of the assets it has and return on equity (ROE) shows the return the investors will receive for their investments (Almajali, 2012) . A firm's performance can be measured in three aspects. The first aspect is a firm's ability to process inputs into outputs efficiently. The second aspect is the level of which a firm's earnings are greater than its costs. The third aspect is the level at which a firm's market value exceeds its book value (Walker, 2001).

There are several benefits that come with a firm determining its financial performance. These include assisting in development of a strategic plan, evaluating effectiveness of firm objectives, monitoring the overall growth and direction of a firm and many other (Yabs, 2015). Return on assets (ROA) is widely used by financial analysts to measure financial performance of a firm, as it measures the efficiency and effectiveness of assets in producing income. The most used accounting measures of financial performance are Return on Assets (ROA) (Clarkson, 2008), Return on Equity (ROE), and Return on Sales (ROS) (Omondi, 2013). Thus, the study will use return on equity (ROE) and return on assets (ROA) to measure financial performance. The advantages of financial measures are the easiness of calculation and that definitions are agreed worldwide (Tangen, 2003).

Cochran & Wood (1984) explained that there is no real consensus in the researching community when it comes to selecting which parameter to use as indicators of financial performance. One of the method which researchers commonly have utilized when evaluating financial performance is using accounting and profitability based measures, such as Return on Assets (ROA) (Tang et al., 2012; Moon et al., 2014) or combinations of various accounting variables (Cochran & Wood, 1984; Cavaco & Crifo, 2014; Saeidi et al., 2015). This study used ROA and ROE independently and thereafter combined the two variables in order to measure financial performance of the real estate firms listed in the NSE in Kenya.

1.1.2 Determinants of Financial Performance of Real Estate Firms

With the increasing trend of sudden corporate failure in both global and local context, shareholders and other stakeholders are increasingly becoming more concerned of the financial performance of their firms. The empirical literature examines how a number of factors, such as debt leverage, liquidity, capitalization, investment, size, age, location and export performance, have an influence on the firms' financial performance. Leverage is the ratio between total debt to the total assets of the firm and it indicates the extent at which total assets are financed by debts (Mwangi et al, 2014). A higher leverage ratio depicts the dependence of the firm on debt financing is high. Debt leverage is measured by the ratio of total debt to equity (debt/equity ratio). It explains the level to which a business is utilizing borrowed money. Companies that are highly leveraged are at risk of bankruptcy and they may also be unable to find new lenders in the future.

Liquidity refers to investment in current liabilities and current assets which are liquidated within twelve months and is therefore significant for firm's day to day operations (Kesimli & Gunay, 2011). Therefore liquidity is very closely related to working capital which is the cash required to finance the daily revenue generating activities of the firm. This is further explained by Vahid, Mohsen and Mohammadreza (2012) that liquidity management plays a crucial role in determining failure or success of firm's performance due to its effect on firm's profitability. A firm's success depends heavily on the ability of financial managers to effectively manage the liquidity.

The asset structure measured by the ratio of fixed assets to total assets as in Serrasqueiro and Nunes (2008) shows the extent to which fixed assets are financed with owners' equity capital. A high ratio indicates an inefficient use of working capital which reduces the firm's ability to carry accounts receivable and maintain inventory and usually means a low cash reserve. This may often limit the ability of the firm to respond to increased demand for products or services. The fixed assets to total assets ratio affects firm's profitability negatively (Notta and Vlachvei, 2007; Serrasqueiro and Nunes, 2008). This can be attributed to the reduced level of current assets which could lead to a lower level of sales, since the firm will be short of the necessary materials, stock, etc. with a reduced level of activity overall.

Net investment (ratio of the net investment to the total assets) refers to an activity of spending, which increases the availability of fixed capital goods or means of production. Net

investment is the total spending on new fixed investment minus replacement investment, which simply replaces depreciated capital goods. This ratio helps to give a sense of how much money a company is spending on capital items used for operations (such as property, plants and equipment). Continued investment in the capital of a firm is crucial because the useful life of existing capital diminishes over time. The amount of net investment compared to such things as revenue will differ between industries and between businesses depending on how capital intensive the business is. This ratio is positively related to firm performance since new investments expand the production and the cash flow generating capacity of the firm (Liargovas, 2012).

Empirical studies on corporate finance have commonly used firm size as an important and a fundamental firm characteristic. This factor is worth considering given that business regulations or taxation policies often differ among big, medium, and small firms, which would in turn affect the firm's performance (Garicano et al. 2016). Additionally, firm size is empirically found to have positive association with capital structure, such that bigger firms may have higher leverage in external financing (Kurshev and Strebulaev 2015).

The geographical place of firms shows their position in physical space. The geographical environment of firms is usually expressed in terms of the state, province or region in which firms are located. With the rapid advancement in transportation and communications, the role of location in determining firm performance may decrease, with respect to factors that can be easily sourced across regions in free-market economies, such as capital, goods and technology (Li, 2004). However, the enduring competitive advantages in a global economy lie increasingly in local things – knowledge, relationships and motivation that distant rivals cannot match (Porter, 1998). Such advantages are specific to a particular location and thus immobile. To access such advantages, a firm must locate in their proximity.

Export performance is the relative success or failure of the efforts of a firm or nation to sell domestically produced goods and services in other nations. There are two views concerning international exchange. The first (classical theory) recognizes the benefits of trade. The second concerns itself with the possibility that some industries can be harmed and others can be benefited by foreign competition (new trade theories) (Liargovas, 2012).

1.1.3 Real Estate Firms in Kenya

The term real estate is used to refer to things that are immovable such as land and improvements permanently attached to the land, and ownership rights associated with the real estate are referred to as real property (Brueggeman & Fisher, 2008). Real estate can be divided into Public and Private real estate. Public securitized real estate markets such as real estate investment trusts (REITs) are liquid and have low transaction costs. Private direct real estate markets have low liquidity and high transaction costs but they are good for portfolio diversification. Yunus et al. (2010) investigated the international markets and found out that the U.S. and U.K. markets, Australia, Netherlands public market lead the private market and not the other way round. It's a long-run relationship between the public and private real estate markets. Though it is generally believed that securitized real estate market, which is more liquid, incorporates the new information more quickly and efficiently than direct real estate market, direct real estate market may lead public market.

Despite the Knight Frank's 2011 Prime International Residential Index (PIRI), which keeps track of price growth across the global upper end real estate markets, showing that Kenya's luxury property market had the most significant price escalation worldwide, the Hass Property Index (2013) has nevertheless shown that the upper end of the market is greatly saturated, and this price increase may not be sustainable in the long run. The huge developments include Thika Greens Limited (TGL) which is on a 1,135 acres piece of land in Thika, a million dollars' worth golf estate which will have 4,000 housing units when finished. In Kiambu we have the Migaa a project set on 774 acres of land developed by Home Afrika Ltd, the development will host 2,500 homes, and an 18 hole golf course. Property prices in areas nearby to these huge developments have increased tremendously, as locals expect the demand to go up. This is because of the benefits that come with such developments like the supply of new amenities that make the rural areas to turn to modern urban estates for the middle and upper class groups. The real estate industry in Kenya is competitive and some of the firms include Home Africa Ltd, Lloyd Masika Limited, Hass consult, Dunhill Consulting Limited among others. A major challenge in Kenya's real estate is that there are only two financial institutions dealing with real estate. They are the Housing Finance Corporation of Kenya and the Savings and Loans Kenya Ltd (S&L). The later merged with its mother company, the Kenya Commercial Bank on 1st January, 2010 leaving the former to be the only real estate finance company. The real estate industry in Kenya has been marked by rigid financing options and high interest rates (Kubuta, 2014).

One of the factors constantly associated to firm performance is firm size commonly measured by either natural logarithm of assets, or sales or employees. Larger real estate firms will have more diversification capabilities, ability to exploit economies of scale and scope and also being highly formalized in terms of procedures. The other factor is leverage, which is the ratio between total debt and total assets of the company that shows the extent to which the total assets are financed by loans. Most real estate firms require debt to finance their large construction projects. Huge debts lead to an increase in leverage ratio which shows the dependence of the firm on external debt financing. This may curtail the autonomy of the firm due to restrictive covenants imposed by debt providers and may lead to financial insolvency. Liquidity is another factor which is defined as the ratio between total current assets of the firm and the total current liabilities within a period of one year or normal operating cycle of the firm whichever is greater. For survival real estate firms must be able to meet their short-term obligations by paying their creditors and also be able to repay their short-term debts. If the firm however has a very high liquidity ratio it shows that the firm is sitting around with a lot of cash because it lacks the managerial acumen to put those resources to work. However, very low liquidity ratio means the firm may struggle to meet its short term obligations as and when they fall due. The real estate firm must be able to maintain a right level of liquidity for it to survive. Various studies were conducted in the fields of industrial economics, small business management, strategic management and accountancy and finance etc. to investigate the effects of various factors on firm performance (Dogan, 2013). The most commonly identified factors are leverage, liquidity and firm size. Therefore this study will attempt to look at these factors and how they influence the financial performance of the firm. This study will specifically focus on firms listed under the investment sector of Nairobi Securities Exchange (NSE).

1.1.4 Real Estate Investment in Kenya

Real Estate investment comprises of great amount of wealth which can be clearly evidenced by the extremely large number of real estate investors in Kenya. In spite of these great returns in term of wealth creation, the real estate industry in Kenya has repeatedly failed to achieve this major role. This is because of the different factors in the real estate sector that affects investment in that sector. In the past years, Kenya's real estate investment has evidently increased. This has been influenced by the different competing reasons like as: desire to own houses, rural to urban migration, increase in foreign investors, the increased remittances from

people in the diaspora, improvement in Kenya's infrastructure developments among others. These reasons have caused property prices in the urban areas to hike especially in major cities like Nairobi. Real estate includes land, buildings on it and other natural resources like minerals and crops and minerals which are not movable. Real estate investment comprises different activities ranging from management, ownership, purchase, rental land or sale of real estate for profit (Okumu, 2017).

The real estate industry is unique because of the distinct features which are not directly interchangeable. Because of this, identifying and locating properties to invest in involves a lot of work. Because information on viable properties is not symmetrical, the decision to buy individual properties may be highly different. Information asymmetry is the norm in the real estate markets due to the huge numbers of property brokers and agents. Therefore this leads to increase in transaction costs and risks but at the same time, many opportunities are provided to investors causing them to acquire properties at bargain prices. To estimate the value of properties, investors use several appraisal and analytical techniques. These techniques help them determine properties value before making a purchase decision (Sirya, 2017).

The real estate industry in Kenya has continued to be an immensely attractive and lucrative sector for many investors due to its great size and value. Elements such as demand and supply in this business sector have had a great impact on the real estate business sector. This investor confidence has been evidenced in a number of ways including Old Mutual Property's recent investment in the Two Rivers Mall. The country real estate sector has also witnessed investments from the Delta Africa Property Fund, Retail Africa and Abland – all from South Africa. AVIC International Holding Corporation of China is also expected to invest over US\$ 200M in constructing their Africa Headquarters in Nairobi. The multi-user development has been reported to contain the highest office block in East Africa and will undoubtedly reshape Nairobi's skyline. All these investments are attributed to the vibrant and ever growing real estate sector in Kenya (Sirya, 2017).

1.2 Statement of the Problem

To establish a clear understanding on the effect of firm specific factors and financial performance of a firm, research has been undertaken by various researchers. For example, in examining the effect of firm characteristics on financial performance of firms listed in the agricultural sector at the NSE, Mahfoudh (2013) concluded that there exists a small positive

effect of leverage and firm size on firm performance though not statistically significant but a moderate positive effect of liquidity on firm financial performance which was statistically significant. Sanghani (2014) investigated the effect of liquidity on the financial performance of non-financial companies listed at the NSE and found that liquidity positively affect the financial performance.

On the contrary however, Abdul (2012) conducted a research to determine the effect of capital structure decisions and the performance of firms in Pakistan and found that financial leverage has a significant negative relationship with firm's performance, measured by return on assets (ROA). Nduati (2018) for example carried out a study to determine the effect of firm specific factors on financial performance of insurance companies in Kenya and found a negative effect of leverage and firm size on financial performance and a positive insignificant effect of liquidity on financial performance. Her study however focused on return on asset as a measure of financial performance. Also Banchuenvijit (2012) did a study on determinants of firm performance of vietnam listed companies and found a negative relation between firm size and profitability.

In summary, studies on the effect of firm specific factors and financial performance have yielded mixed results. Further, prior studies have focused on return on assets as a measure of financial performance. This study has combined ROA with return on equity bearing in mind that the firms being studies are listed firms and thus ROE is key to investors since it assists them to ascertain if there is any income associated with investment. The conflicting findings and the use of one measure of financial performance reported in the literature requires further studies. This is part of the reason for this study which sought to answer the question: What is the effect of selected firm specific factors on the financial performance of real estate firms in Kenya.

1.3 Objectives of the Study

The study was guided by the following objectives:

- i. To determine the effect of liquidity on the financial performance of real estate firms in Kenya.
- ii. To assess the effect of leverage on the financial performance of real estate firms in Kenya.

- iii. To examine the effect of firm size on the financial performance of real estate firms in Kenya.
- iv. To determine the combined effect liquidity, leverage and firm size on the financial performance of real estate firms in Kenya

1.4 Research Hypotheses

The research hypotheses were as follows:

H₀₁: Liquidity has no statistically significant effect on the financial performance of real estate firms in Kenya

H₀₂: Leverage has no statistically significant effect on the financial performance of real estate firms in Kenya

H₀₃: Firm size has no statistically significant effect on the financial performance of real estate firms in Kenya

H₀₄: Liquidity, leverage and firm size have no significant effect on financial performance of real estate firms in Kenya

1.5 Significance of the Study

The research findings sheds light to real estate investors in seeking to inject their capital or expand in the real estate sector to be able to make informed evaluation of the factors influencing investment in commercial real estate hence being able to make sound decisions. Individuals seeking to own their own homes also benefit in understanding the market forces and make the best buy. The findings also act as a source of knowledge to academicians. The findings will be used as reference and prompt interest among researchers to further research on real estate field. It will also benefit institutions of higher learning. The academicians would use this study as a basis for discussions on the effects of financial factors on performance of real estate firms in Kenya.

The government and financial market regulators also gain insight on the dynamics of the property market, thus enabling them to put in place proper policies to regulate the same, and protect real estate investors. It is also hoped that through the favorable policies put in place, investment in real estate will be greatly encouraged.

1.6 Scope of the Study

The scope of the study was real estate firms listed in the investment subsector of the Nairobi Securities exchange (NSE) and covered all the five (5) listed real estate firms in Kenya. The factors under study were limited to leverage, liquidity and firm size. Other researchers did not look at all the aspects of these variables. These aspects include but are not limited to market capitalization used to determine the firm size, interest coverage ratio used to find leverage of the firms and acid test ratio used to determine the liquidity of the firms. Financial performance was measured in terms of profitability thereby the study used return on assets and return on equity. The study used published audited financial statements and covered a period of ten years between 2008 and 2017. The study collected data for this period since it was most recent and the data was much reliable to make the conclusion and recommendations.

1.7 Limitations of the study

The study relied on data collected from secondary sources and any error in the original data could not be avoided. However, all data was collected from the published audited financial statements on the firm's and capital market authorities (CMA) websites respectively and therefore reliable.

1.8 Assumptions of the Study

This study was guided by the assumptions that data collected is a true representation of the firms under study and that the selected firms keep accurate and up to date financial records and the custodians of this information was willing to share the information for research.

1.9 Operational Definition of Terms

Financial performance - Is a measure of how well a firm can use assets from its primary mode of business and generate revenues. There are many different ways to measure financial performance, for example revenue from operations, operating income or cash flow from operations can be used, as well as total unit sales.

Firm Size – A firm can be seen to be large or small depending on amount of assets it has, or sales it makes per annum or the number of employees it has. It is measured by either natural logarithm of assets, or sales or employees.

Leverage - This is ratio between total debt and total assets of the company that shows the extent to which the totals assets are financed by loans. An increase in this ratio shows the dependence of the company on external debt financing and greater score being given to the firm by debt providers.

Liquidity – This is a ratio between total current assets of the firm and the total current liabilities or obligation within a period of one year or normal operating cycle of the firm whichever is greater.

Real Estate – This is land and any buildings or structures attached onto it. It can be residential housing, commercial offices, trading spaces, retail outlets, industrial buildings and government buildings.

Real estate Firms – They deal with the purchase, sale, and development of land, residential and non-residential buildings. The main players in the real estate market are the landlords, developers, builders, real estate agents, tenants, buyers etc.

Return on Assets (ROA) - This is a financial performance measure which measures how well the company is utilizing its assets to generate income.

Return on Equity (ROE) – It's a financial performance measure which measures how much returns are given to every shillings of equity capital provided by internal financier who are shareholders of the company

Securities exchange - Is an organized and regulated financial market where securities are bought and sold at prices governed by the forces of demand and supply.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter summarizes the information from other researchers who have carried out their research in the same field of study. This literature review commences with a discussion of the theory related to the study and an empirical literature review which provides a useful context for study. The section concludes with a conceptual framework which shows the hypothetical relationship between variables under study.

2.2 Theoretical Literature Review

This study was guided by the following theories which are relevant to the study's main objective.

2.2.1 Trade-Off Theory

Modigliani and Miller (1950) were the proponents of this theory that considered a balance between the dead-weight costs of bankruptcy including the agency cost and the tax saving benefits of debt. This theory postulates that a company chooses how much debt finance and how much equity finance to use by balancing the costs and benefits. Interest expenses on debt are tax deductible and as such it may be used to reduce the taxable income which will consequently reduce tax liability.

The relevance of this theory to this study is that the use of debt financing also increases financial risk to a company which may consequently lead it to financial distress. Niu (2008) observes that managers of companies regard debt-equity decisions as tradeoff between interest tax shield of debt and associated leverage costs such as bankruptcy, agency costs and loss of non-debt tax shield. This theory contends that the firm sets a target leverage ratio which it gradually moves towards it. Trade-off theory predicts that highly profitable firms that have more debt servicing capacity and more taxable income to shield will have higher debt ratios and firms that have high growth opportunities should have low debt ratios because they borrow less to avoid losing value in financial distress and will mostly rely on equity financing.

2.2.2 Shiftable Theory

This theory was originated in the USA by Moulton (1918). According to this theory, the problem of liquidity is not a problem but shifting of assets without any material loss. Moulton specified, “to attain minimum reserves, relying on maturing bills is not needed but maintaining quantity of assets which can be shifted to other banks whenever necessary. It must fulfill the attributes of immediate transferability to others without loss. In case of requirement, there is no need to depend on maturities.

Therefore the relevance of this theory to the study is for an asset to be perfectly shiftable, it must be directly transferable without any capital loss when there is a need for liquidity. This is specifically used for short term market investments, like treasury bills and bills of exchange which can be directly sold whenever there is need to raise funds by banks. In case of general liquidity crisis, bank should maintain liquidity by possessing assets which can be shifted to the Central Bank”. Thus, as development took place the Commercial Loan Theory lost ground in favor of Shiftability Theory. During depression, the whole industry would be in crisis. The shares and debentures of well reputed companies would fail to attract buyers and cost of shifting of assets would be high. Blue chip securities will also lose their shiftability character. Thus, both Commercial Loan as well as Shiftability Theory failed to distinguish liquidity of an individual bank as well as the banking industry.

2.2.3 Liquidity Preference Theory

Liquidity preference theory is basically demand for money, this is regarded as liquidity. This theory was developed from the works of John Maynard Keynes, written in his book titled “The General Theory of Employment, Interest and Money “in 1936. This book explained how interest rate was determined through demand and supply for money. Demand for money as an asset was hypothesized to rely on the forgone interest by failure to hold bonds. In this case, bonds also represent stocks among other assets that are less liquid including government bonds. Keynes (1964) argues that interest rates is not a reward that is got from saving because if an individual hoards his savings in cash terms he will not get any interest, even though he has not ceased from utilizing his current incomes. Instead of getting a reward for saving, interest, Keynesians opines that it is a reward that one gets because of parting with liquidity. Keynes argues that interest rate is determined by liquidity preference.

The relevance of this theory is that firms are ready to pay premiums to get liquid assets. Also, firms will consider paying less than market value for illiquid assets. Solvent firms are more efficient in their operations since they can meet their financial obligations on time and this minimizes unnecessary costs from delays and inefficiencies, and this contributes positively towards the firm's financial performance.

2.3 Factors Influencing Real Estate Performance

There are several factors which affect financial performance of firms. They include liquidity, leverage, firm size, firm age, dividend policy, business diversification, geographical diversification, corporate governance, growth, profitability, board size, capitalization/asset structure and net investment. The study will major on liquidity, leverage and firm since they are financial in nature. These three are discussed below.

2.3.1 Liquidity

Liquidity refers to investment in current assets and current liabilities which are liquidated within one year or less and is therefore crucial for firm's day to day operations (Kesimli & Gunay, 2011). It is usually measured by the current assets to current liabilities (current ratio). Liquidity is very closely related to working capital which is the money needed to finance the daily revenue generating activities of the firm. According to Vahid, Mohsen and Mohammadreza (2012) working capital management plays a significant role in determining success or failure of firm in business performance due to its effect on firm's profitability. Business success depends heavily on the ability of financial managers to effectively manage the components of working capital (Filbeck & Krueger, 2005). A firm may adopt an aggressive or a conservative working capital management policy to achieve this goal.

Liquidity reveals a firm's ability to meet its short-term obligations and quickness in converting an asset into cash at its fair market value (Scott, 1999). Good liquidity management can improve operating results and enhance firm performance, whereas poor liquidity management can lead to weak operating profits and hurt firm performance in the capital market (Moyer, McGuigan, & Kretlow 2001). Therefore, the objective of liquidity management is to find an optimal balance between liquid and illiquid assets to minimize operating costs and hence improve firm performance. Some empirical studies supported a positive relationship between liquidity and firm performance (Chathoth & Olsen, 2007; Opler, 1999); others revealed a negative correlation (Shin & Soenen, 1998).

A firm should balance the cost of liquidity and cost of illiquidity at equilibrium (Pandey, 2011). The mechanisms that explain why liquidity can suddenly evaporate operate through the interaction of funding illiquidity due to maturity mismatches and market illiquidity. As long as a financial institution's assets pay off whenever its debt is due, it cannot suffer from funding liquidity problems even if it is highly levered. However, nonfinancial firms typically have an asset-liability maturity mismatch and hence are exposed to funding liquidity risk. A funding shortage arises when it is prohibitively expensive both to borrow more funds (low funding liquidity) and sell off its assets (low market liquidity). In short, problems only arise if both funding liquidity dries up (high margins/haircuts, restrained lending) and market liquidity evaporates (fire sale discounts) (Muganga, 2010).

Another view on liquidity was explained by (Liargovas & Skandalis, 2008) argues that firm can use liquid assets to finance its activities and investments when external finance is not available. On the other hand, higher liquidity can allow a firm to deal with unexpected contingencies and to cope with its obligations during periods of low earnings. Almajali (2012) found that firm liquidity had significant effect on financial performance of insurance companies. The result suggested that the insurance companies should increase the current assets and decrease current liabilities because the positive relationship between the liquidity and financial performance.

2.3.2 Leverage

Leverage refers to the proportion of debt to equity in the capital structure of a firm. It is measured by the ratio of total debt to equity (debt/equity ratio). The financing or leverage decision is a significant managerial decision because it influences the shareholder's return and risk and the market value of the firm. The ratio of debt-equity has implications for the shareholders' dividends and risk, this affect the cost of capital and the market value of the firm (Tikkiwal & Pandey, 2007). Gupta and Zeithaml (2006) cited some studies showing contradictory results about the relationship between increased uses of debt and financial performance.

Financial leverage measures a firm's capital structure (debt versus equity) and reflects a firm's ability to meet its long-term obligations exposed to financial risk. According to Moyer, McGuigan, and Kretlow (2001) the optimal capital structure theory holds that an inverted U-shape relationship exists between debt usage and firm value as reflected in the capital market.

The optimal debt level is reached when the costs of debt just offset the benefits of debt. Research by Cheong (2009) studied the behavior of interest rates and stock market prices and examined their sensitivity and importance; their study found that interest rates and market changes drive property securities price movements. Generally, borrowing by companies gives a tax shelter for taxable income through the interest payment because the interest is paid and deducted from revenue before arriving at taxable income. It therefore reduces the tax burden of a company.

Zeitun and Tian (2007) found a significantly negative relationship between financial structure and corporate performance. In other words, firms can take advantage of debt to make a better return on equity and measure leverage by the debt ratio calculated by the total liabilities divided by total assets (Nazir & Afza, 2008; Chiou, Cheng & Wu, 2006). Apphumani (2008) measured leverage as total long-term debt capital divided by equity. In this study, debt level (DEBT) will be measured as long term debt divided by total assets.

2.3.3 Firm Size

One of the firm characteristic that is constantly associated to firm performance is firm size commonly measured by either natural logarithm of assets, or sales or employees. Larger firms are associated with having more diversification capabilities, ability to exploit economies of scale and scope and also being highly formalized in terms of procedures. One school of thought argues that there is a positive relationship between firm size and firm performance (Penrose, 1959; Majumdar, 1997). It argues that bigger firms have more competitive power and also have a bigger market share which positions them to profit more. Moreover, bigger firms can seize a profitable opportunity that comes in their way since they have bigger capital resources than smaller sized firms. Another school of thought argues that due to organizational rigidity brought about by bigger firm size and a lot of unnecessary bureaucracies, profitable opportunities that may want urgent attention will easily pass the firm and thus making them less profitable in relative terms and thus negatively impact on firm performance (Leibenstein, 1976; Shepherd, 1986; Banchuenvijit, 2012; Goddard, 2005).

Financiers are not willing to offer small firms capital, or the price of the offered capital is too high for small firms (Ferri & Jones, 2009). Another reason, which makes small firms reluctant to use outside financing, is the market access limitations. In many cases, the minimum volume of capital is required in order to raise external fund (Cassar & Holmes,

2003). This idea is supported by empirical evidence that concludes SMEs are often forced to use internal source, and then short-term debt contracts due to the limited access to the long term financing (Osteryoung, 2002; Chittenden, 2006; Michaelas, 2009). Many authors have suggested a positive relationship between a firm leverage and its size (Fama & French, 2002). Warner (2007) and (Ang, 2012) stressed out, that when the value of the firm increases; the ratio of direct bankruptcy costs to the firm value would decrease. The effect of these expected bankruptcy costs might be little on large firms' borrowing decisions, which empower them to take on more leverage (Rajan & Zingales, 2005). On the other side, smaller firms face a different reality in raising the long term debt.

2.4 Empirical Studies

2.4.1 Liquidity and Firm Performance

A study by Mahfoudh (2013) sought to investigate the effect of selected firm characteristics on financial performance of firms listed in the agricultural sector at the Nairobi Securities Exchange (NSE). The objective was to determine the effect of selected firm characteristics on financial performance of firms listed in the agricultural sector at the Nairobi Securities Exchange. Six out of the seven listed firms under the agricultural sector were studied from the year 2007 to 2012 for the various chosen firm characteristics namely firm size, leverage, firm age, liquidity and board size on firm performance measured by ROA. The study found out that four independent variables were positively related to firm performance namely firm size, leverage, firm age, liquidity but though the association for firm age with financial performance was weak. There was slight evidence of shared size effects in the five predictors and thus the researcher went ahead to analyze further the correlations partially while controlling for the other four independent variables to investigate its independent size effect on firm performance. However, board size and firm financial performance was negatively related.

A study by Sanghani (2014) examined the effect of liquidity on the financial performance of non-financial companies listed at the Nairobi Securities Exchange (NSE). A descriptive research design was adopted in this study. The population of this study comprised of 41 non-financial companies listed in the NSE from 2009 to 2013. The objective of the study was to establish the effect of liquidity on the financial performance of non-financial companies listed at the NSE. Secondary data was collected from NSE and multiple regression analysis used in

the data analysis. The study revealed that liquidity positively affects the financial performance of non-financial companies listed at the NSE. The study recommends that there is need for non-financial companies listed at the NSE to increase their current assets so as to increase their liquidity as it was found that an increase in current ratio positively affect the financial performance. The study further recommends that there is need for non-financial companies listed at the NSE to increase their operating cashflow, through reduction of their credit repayment period in order to positively influence their financial performance. The study recommends a further study to be done on the effects of liquidity on financial performance of financial companies listed at the Nairobi Securities Exchange.

A study by Dong and Su (2010) concluded that a firm's profitability and liquidity are affected by working capital management. The study used pooled data for the period between 2006 and 2008 to assess the companies listed in the Vietnam Stock Exchange. The study focused on cash conversion cycle and related elements to measure working capital management. The study found that the relationships among these variables were strongly negative, suggesting that profit is negatively influenced by an increase in cash conversion cycle. The study also found that profitability increases as the debtor's collection period and inventory conversion period reduce. The present study operationalized working capital management in terms of aggressiveness and conservatism as measured by the proportion of current liabilities to total assets and total liabilities.

Sharma and Kumar (2011) did a study to determine the effect of working capital management on profitability of Indian firms, the study used a sample of 263 non-financial firms listed on the Bombay Stock Exchange during 2002 to 2008. Data were analyzed using OLS multiple regression. The study found a positive relation between WCM and firm profitability, although the relationship between cash conversion cycle and ROA was not statistically significant. The study also found that account receivables are also positively related to ROA and that account payables are negatively related to ROA. The results assert that Indian firms can increase profitability by increasing cash collection cycle. This study contradicts other studies (Dong, 2010; Mathuva, 2009). The authors attribute this difference to the fact that India is an emerging market.

Ehiedu (2014) conducted a study on The Impact of Liquidity on Profitability of Some Selected Companies in Nigeria and concluded that 75% of them indicated that current ratio

has a significant positive correlation with profitability. The researcher believes that the reason for this positive relationship between current ratio and profitability is simply because idle funds, especially when they are borrowed, generate profit and less costs in the business. The two companies depicted a negative correlation between Acid test ratio and return on assets respectively. Thus, from the above results, 50% of the companies analyzed indicated a significant negative correlation between current ratio and acid test ratio. Hence there is no definite correlation between current ratio and profitability in this analysis.

2.4.2 Leverage and Firm Performance

Mwangi (2010) examined the relationship between capital structure and financial performance of firms listed at the Nairobi securities exchange. The causal research design was adopted in this study. The population of this study comprises 57 firms that were listed at the Nairobi Securities Exchange between year 2000 and 2009. Purposive sampling technique was used for this study. The sample comprises 32 non- financial firms that were continuously listed for a period of ten years from year 2000 to 2009. The sample excluded 13 financial firms (Banks and Insurance firms) and 12 non-financial companies which were not continuously listed during the study period; 2 firms were de-listed, 4 firms were suspended and 6 were newly listed. Pearson correlation which establishes relationship between variables indicated that leverage is determined by return on equity, liquidity, and return on investment. This is because there is strong relationship between leverage and return on equity, liquidity, and return on investment. Coefficient of the regression shows that there is relationship between leverage and return on equity, return on asset, liquidity and return on investment. The study findings were that leverage is determined by return on equity, liquidity and return on investment. The study concluded that there is a strong positive relationship between leverage and return on equity, return on asset, liquidity and return on investment.

Berger and Bonaccorsi di Patti (2006) examined leverage and firm performance. They were the first to employ a simultaneous-equations model that accounts for reverse causality from performance to capital structure. We also control for measures of ownership structure in the tests. The study employed a number of different measures of firm performance which include: financial ratios from balance sheet and income statements; stock market returns and their volatility; and Tobin's Q, which mixes market values with accounting values. The study reported a positive relationship between leverage and financial performance. However, although banking is a regulated industry, banks are subject to the same type of agency costs

and other influences on behavior as other industries. The banks in the sample are subject to essentially equal regulatory constraints, and the study focused on differences across banks, not between banks and other firms.

Maigua (2014) examined the relationship between capital structure and financial performance of top 100 small and medium enterprises in Nairobi County. The study targeted 100 SMEs which are registered as companies in Nairobi County. Simple random sampling was applied for choosing the samples size. The sample size selected under proportional allocation was 30. Secondary data was collected from financial records of SMEs. Documentary guide aided in data collection. Descriptive statistics such as mean and standard deviation and inferential statistic such as Pearson correlation and multiple regression model was used in analyzing data. The study findings were that capital structure had a negative relationship on firm financial performance of SMEs in Nairobi County. There is however also evidence that capital structure has a positive significant effect on ROA. The study concluded that capital structure has a significant effect on financial performance.

Kyule and Ngugi (2014) examined the influence of capital structure on leverage of small and medium size enterprises in Kenya. The study variables included: firm size, firm profitability, firm age, firm risk and firm asset structure. The study adopted a descriptive survey design. The study was conducted on the SMEs in Nairobi. The population comprised of 4300 SMEs. Stratified proportionate random sampling technique was used to select the sample. The study grouped the population into the various sectors i.e. Manufacturing, Trading and Service sectors. From each sector the study used a proportion of 10% from each stratum to select 430 SMEs. Primary as well as secondary data was collected. Primary data was collected using questionnaires. Secondary data was obtained from relevant literature review from studies, journals, magazines and the internet. The completed questionnaires was then tabulated, coded and processed by use of a computer Statistical Package for Social Science (SPSS) version 21 to analyze the data. Descriptive statistics such as mean and standard deviation were used. Tables, pie charts, and graphs were used to present responses and facilitate comparison. The study findings were that a positive relationship between firm leverage and its size stressed out, that when the value of the firm increases; the ratio of direct bankruptcy costs to the firm value would decrease. The study concluded that there is a negative relationship between the firm profitability and the level of leverage, also that the level of risk is said to be one of the primary determinants of a firm's capital structure.

2.4.3 Firm Size and Firm Performance

Nunes, Serrasqueiro and Sequeira (2008) in their study investigating 75 Portuguese service oriented companies (375 observations) to see the effect of firm size on profitability and introducing several control variables in the study such as growth, debt (leverage), liquidity and asset structure (tangibility) was using both static panel models and dynamic estimators. They found positive and statistically significant relations between the size and performance of the firms as a result of the study using the data belonging the years 1999-2003. As for the control variables, they found a positive effect of growth and liquidity on profitability but a negative effect of firm leverage and asset structure (tangibility) on firm profitability as measured by ROA.

Lee (2009) in his study to investigate effect of size of firm performance dubbed “ does size matter in firm performance: evidence form US public firms” found firm size to be a key determinant in explaining profitability of 7,158 US publicly held companies in US stock exchanges using data of over 20 years period between 1987 and 2006. The researcher used panel data and run a multi variate regression of firm size amongst other control variables against firm performance as measured net income plus advertising expenses over total assets. The researcher found that the greater total assets, the higher profitability. The reason is that large firms are likely to be more efficient in operating and producing by exploiting the advantage of economies of scale than small firms.

Dogan (2013) investigated the effect of firm size on firm profitability of 200 companies listed at the Istanbul Stock Exchange using data from the year 2008 to 2011 by using multi variate regression model. He introduced other control variables in his study such as liquidity which was measured by total current assets over total current liabilities, leverage measured as total debt over total liabilities as well as firm age measured by number of years in operations. Firm size and liquidity was positively related to profitability as measured by ROA and leverage and firm age were negatively related to profitability measured by ROA.

Banchuenvijit (2012) examined the effects of firm size, employee compensation, firm age, capital intensity and export factor on financial performance of listed companies on Vietnam stock markets. Discussing the effects of firm size on its performance, he argued that large firms, in term of total sales, are more profitable than small firms. This is because the large firms enjoy higher profit and take advantage in negotiating the price of inputs. The firm size

was measured not only by total assets and net sales but also by number of employees. The firm size in term of total assets is negatively related to firm performance. The firm size in term of number of employees does not affect directly on firm performance. It affects indirectly through the channel of paid compensation per employee.

2.5 Interest Rate

Although it is difficult to prove the direction of the relationship between interest rates and profitability, interest rates instability generally has an effect with financial performance. High interest rates will lead to increased commercial banks interest income but also lead to low demand for the loans and hence crowding out the increased interest income. Without interest rates stability, domestic and foreign investors will stay away and resources will be diverted elsewhere. In fact, econometric evidence of investment behavior indicates that in addition to conventional factors (past growth of economic activity, real interest rates, and private sector credit), private investment is significantly and negatively influenced by uncertainty and macroeconomic instability (Sayedi, 2013). In addition to low (and sometimes even negative) growth rates, other aspects of macroeconomic instability can place a heavy burden on the firms leading to reduced profitability (Gilchris, 2013).

2.6 Research Gap

To understand how real estates in developing countries finance their operations, it is necessary to examine the factors affecting their financial performance. Business success depends heavily on the ability of financial managers to effectively manage the financial structure components and real estates in Kenya were characterized by a decline in performance. This situation has led to loss of investors' wealth and confidence in the stock market. Sanghani (2014) examined liquidity and found that it has a positive relationship to financial performance of a firm. Maigua (2014) examined leverage and found it has a negative relationship with the financial performance of a firm. My research will measure financial performance using both return on assets and return on equity. Few studies have been done on the combined effect of the three financial factors on performance and specifically in relation to real estate firms in Kenya. Based on the empirical studies there is a gap in knowledge and is on this that this study is built on.

2.7 Conceptual Framework

A conceptual framework is a hypothesized model that graphically portrays the relationships (Mugenda & Mugenda, 2003). The conceptual framework for this study is illustrated in Figure 2.1 below. According to this framework, financial factors are the independent variable whereas financial performance is the dependent variable

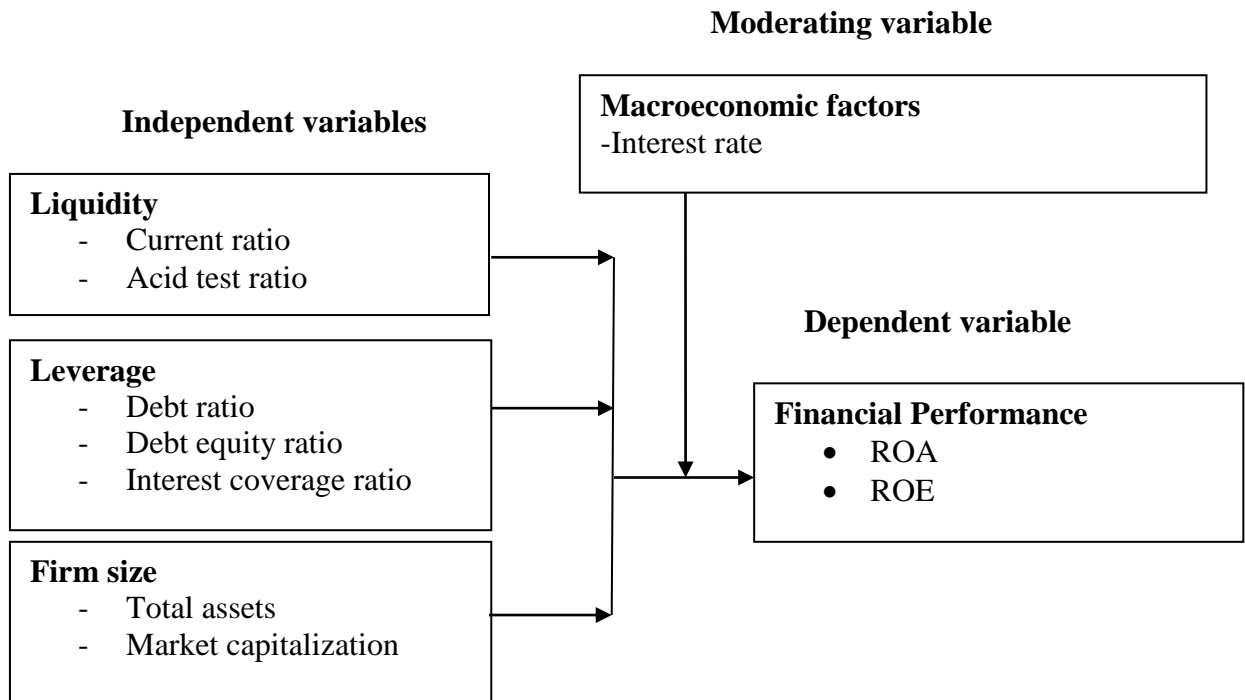


Figure 2.1 Conceptual framework of firm specific factors on financial performance

This is a framework that explains the relationship between liquidity, leverage and firm size with the financial performance of real estate firms in Kenya. It consists of the independent, intervening and dependent variables. The independent variables are liquidity, leverage and firm size. Liquidity was measured using current and acid test ratios. Leverage was measured using debt, debt equity and interest coverage ratios. Firm size was measured using total assets and market capitalization. The financial performance was measured using return on assets and return on equity. The study conceptualized that the financial performance is affected by liquidity, leverage and firm size. The intervening variable is interest rate.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter consists of research design, target population, sample size and sampling technique, data collection procedure, reliability and validity of the research instruments to be used and data analysis and presentation techniques.

3.2 Research Design

The study employed descriptive research design. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection (Glass & Hopkins, 1984). Descriptive research design was used since the data to be obtained on the elements and the variables was for a given time period. This design is appropriate for acquiring information on the variables dealt with in this study and the relationship between them. Nduati (2018) also employed descriptive research design because it is useful in establishing hypothetical relationships among variables. Census research design was regarded suitable for this study because the researcher aimed at identifying the characteristics of a defined population with respect to specific variables. The study employed the use of data collection sheet to collect data that showed the facts on whether the specific factors truly affect the firm's performance.

3.3 Target Population

Nachmias and Nachmias (2008) define a population as all cases of individuals or things or elements that fit a researcher's specification. The target population for this study included firms listed in the Nairobi Securities Exchange (NSE) that deal with real estate investments. These firms are listed under the investment subsection of the listed companies in the NSE. They are Olympia Capital Holdings Ltd, Centum Investment Co. Ltd, Trans-Century Ltd, Home Afrika Ltd and Kurwitu Ventures. The study collected data from four firms that is Olympia Capital Holdings Ltd, Centum Investment Co. Ltd, Trans-Century Ltd and Home Afrika Ltd but Kurwitu Ventures did not form part of target population due to unavailability of financial statements for the whole period of the study.

3.4 Census Survey

Since the population of the study is small, a census survey was adopted where secondary data was collected from the five (5) firms. Census survey is the appropriate data collection design for a small heterogeneous population. Since the sample frame for the study is small and heterogeneous, census survey was adopted. According to Kothari (2008) the larger the sample size for a small population, the more accurate the results are likely to be and hence the choice of the census technique in the proposed study.

3.5 Data Collection and Instrumentation

In this study only secondary data was used. Secondary data is data which has already been collected for a purpose other than the problem at hand. Kothari (2005) explains that data collection is a systematic method that is applied to gather and examine data from different sources so as to get a clearer picture of an area under investigation. Data collection sheets were used to collect secondary data. The data collection sheet was designed based on the objectives of the study. Secondary data was collected from audited financial statements of the target firms listed in the Nairobi Securities Exchange (NSE) for the period (2008-2017) from the NSE Website, CMA website and respective firm's website. This was a period of ten (10) years. This period was chosen because it offers current observation. From the financial statements, the researcher collected information on level of current assets, current liabilities, total debt, total equity, profit after tax and total assets.

3.6 Data Analysis and Presentation

Data collected was processed, coded and analyzed based on the research objectives. Both descriptive and inferential statistics were used. Descriptive statistics involving the use of frequencies, percentages, standard deviations, maximum, minimum and means was used to summarize the data while inferential statistics such as product moment person correlation was used to test non-causal relationships among the study variables while simple and multiple regression analysis was applied to the relationship between dependent variable and independent variables respectively using beta (β) coefficients values. The data was analyzed using a regression model with aid of Statistical package for social science software (SPSS) version 21 and Microsoft excel. Logarithms were used to make the analysis easier. The components of financial performance that is ROA and ROE were first analyzed separately and then combined. The researcher performed hypothesis testing by determining statistical

significance of the coefficients of explanatory variables. This was done by using the two-tailed t-test statistic and the corresponding p -values at 5% levels.

The findings were presented in the form of statistical tables and discussions thereof.

The following is a simple regression model for the variables;

$$Y = \beta_0 + \beta_1 X_1$$

This was the simple regression model for objective one

$$Y = \beta_0 + \beta_2 X_2$$

This was the simple regression model for objective two

$$Y = \beta_0 + \beta_3 X_3$$

This was the simple regression model for objective three

The following multiple regression model was used :

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Where,

Y = Financial Performance (Dependent Variable)

X_1 = Leverage

X_2 = Liquidity

X_3 = Firm Size

$\beta_1, \beta_2, \beta_3$: Regression coefficients for independent variables

β_0 = regression Constant

ϵ = error term assumed to be normally distributed

The researcher also conducted diagnostic tests as follows:

3.6.1 Normality Test

Normality tests are meant to test normal distribution which is bell shaped (i.e. Mean of zero). The researcher utilized P-P plots in this study to test the assumption that data was obtained from a normally-distributed population. A null hypothesis test was done to test if the data was derived from a population that is normally-distributed.

3.6.2 Autocorrelation

Autocorrelation is the measurement of the similarity between a certain time series and lagged value of the same time series over successive time intervals. The test was done using Durbin-Watson. This test depicts a test statistic with a value of 0 to 4 where 2 means no

autocorrelation exists, where the statistic is less than two means a positive autocorrelation exists and where greater than two means a negative autocorrelation exists (Cohen, et al., 2013).

3.6.3 Multicollinearity Test

To ensure the data collected is free from biasness and one variable data is not related to another variable data, the study conducted a multicollinearity test. It occurs when there is nearly exact linear relation among two or more of the independent variables. The variance of Inflation was used to test multicollinearity. Whenever the values of VIF between 1 and 4 then there is no multicollinearity but when the VIF is less than 1 or greater than 4, then there is multicollinearity (Cohen, et al., 2013).

3.7 Operationalization of Variable

This section presents the measurements that will be used to operationalize the study variable

Table 3.1 Variable Measurement

Variables	Variable Definition	Measurement
Financial Performance	Firms ability to efficiently and effectively use its resources accomplish its objectives and goals	ROA=After Tax Profit/Total Assets ROE =After Tax Profit/Total Equity
Leverage	Degree to which a business is utilizing borrowed money	Debt Ratio=Total Debt/Total Assets Debt Equity ratio=Total Debt/Total Equity Interest coverage ratio=EBIT/ Interest Expense
Liquidity	Firms ability to meet short term obligations by quickly converting assets to cash	Current Ratio=Current Assets/ Current Liabilities Acid test ratio=Current Assets-Stock/Current Liabilities
Firm Size`	Firm characteristic measured by Either natural logarithm of assets sales or employees	Natural Log of Total Assets Market Capitalization=Shares outstanding*MPS

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the research findings to establish the effect of selected firm specific factors on financial performance of real estate firms listed at the Nairobi Securities Exchange in Kenya. The study was conducted on a 10 years period where secondary data from the period of 2008 to 2017 was used in the analysis.

4.2 Diagnostic Tests results

The researcher conducted diagnostic tests on secondary data of real estate firms in the Nairobi Securities Exchange data and their results are shown below.

4.2.1 Test of Normality

The researcher used P-P plots to test the normality of data.

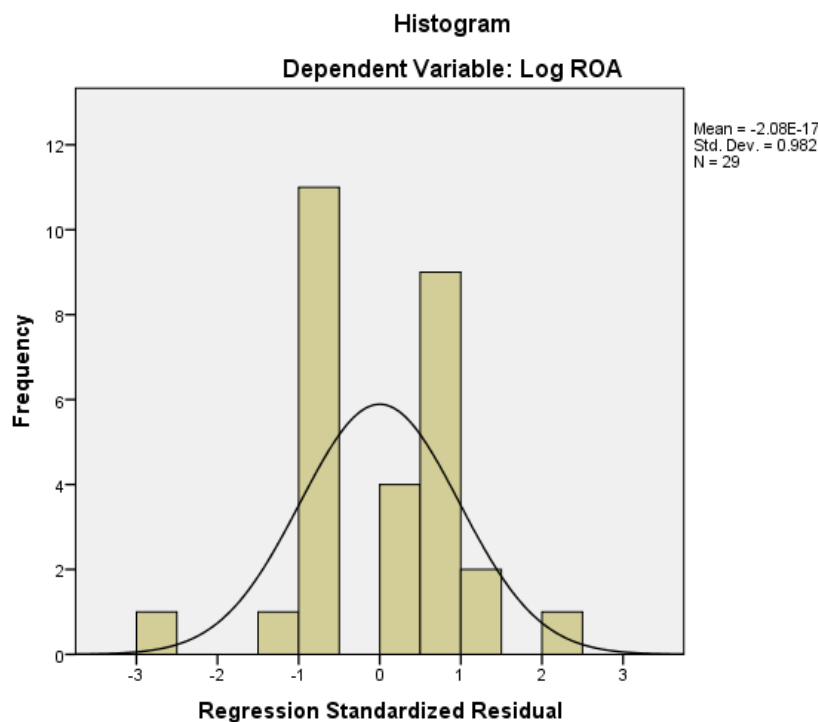


Figure 4.1: Histogram showing distribution of data for ROA.

Figure 4.1 revealed a normal distribution of the observations of the ROA and the data was considered good for further analysis in the model.

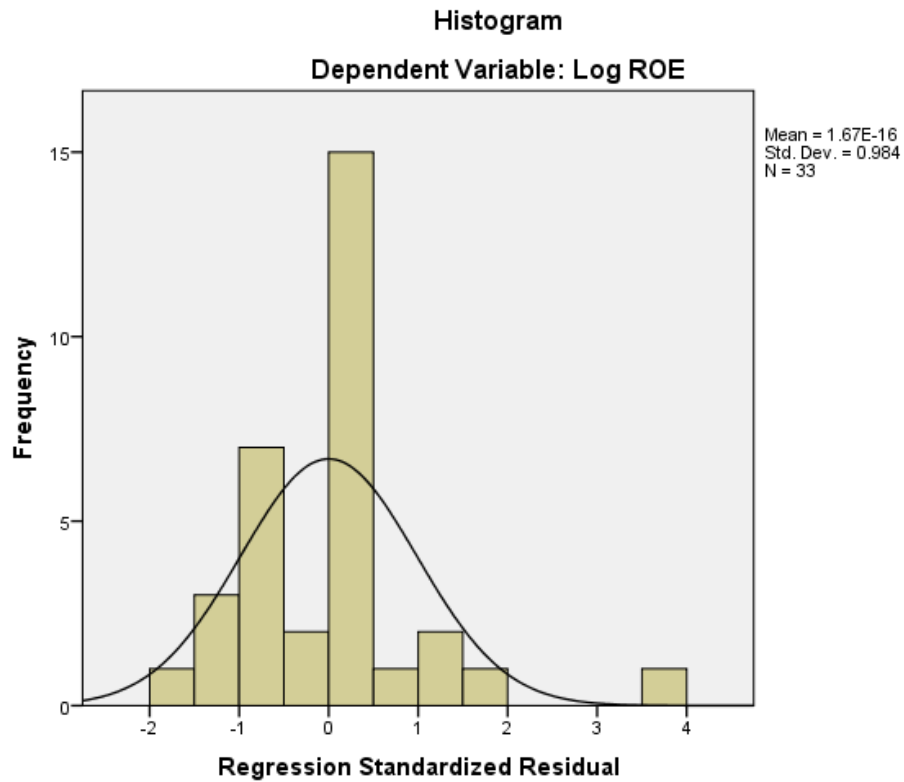


Figure 4.2: Histogram showing distribution of data for ROE.

Figure 4.2 revealed a normal distribution of the observations of the ROE and the data was considered good for further analysis in the model.

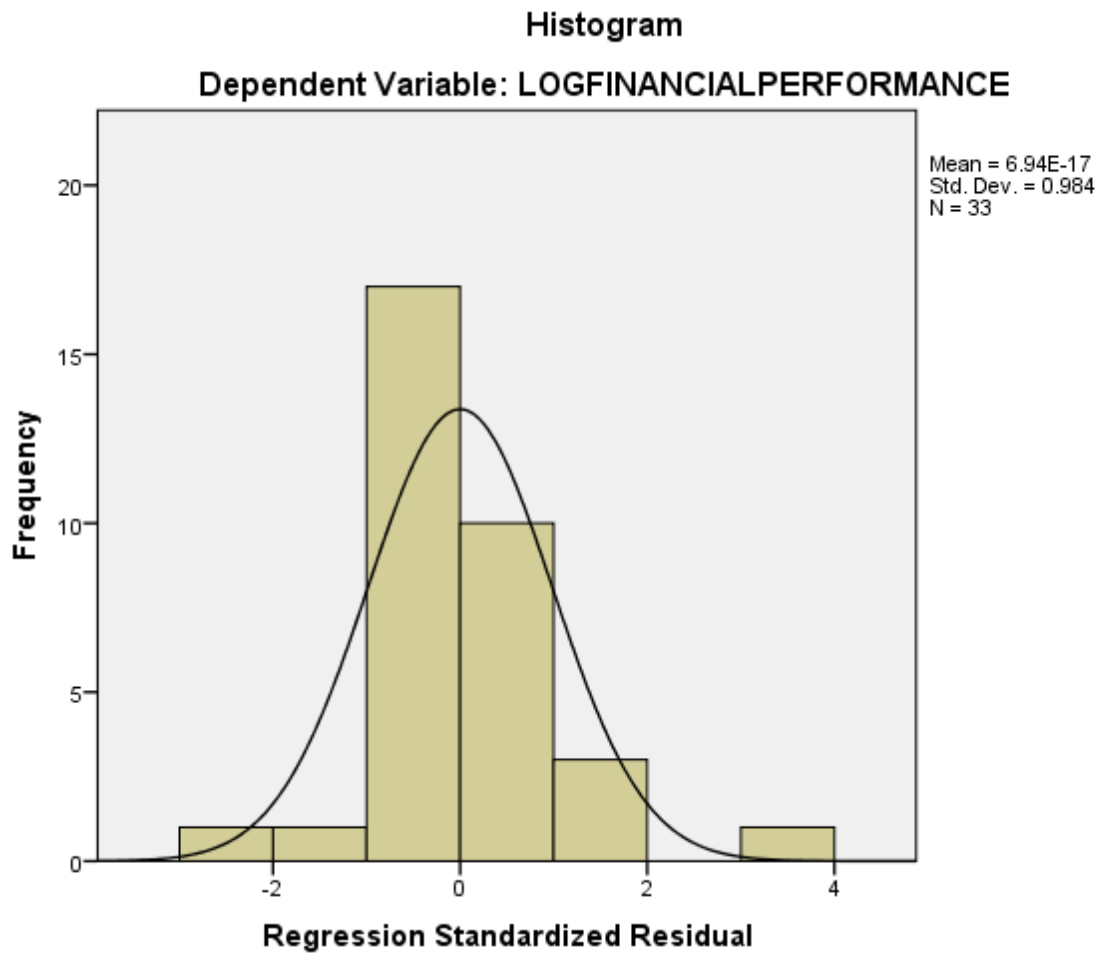


Figure 4.3: Histogram showing distribution of data for Financial Performance.

Figure 4.3 revealed a normal distribution of the observations of the financial performance and the data was considered good for further analysis in the model.

4.2.2 Test of Linearity

Linearity test show that two variables x and y are related by a mathematical equation linear regression $y=bx$ where b is a constant number. The linearity test was obtained through the scatted P-P plot represented below for each variables.

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Log ROA

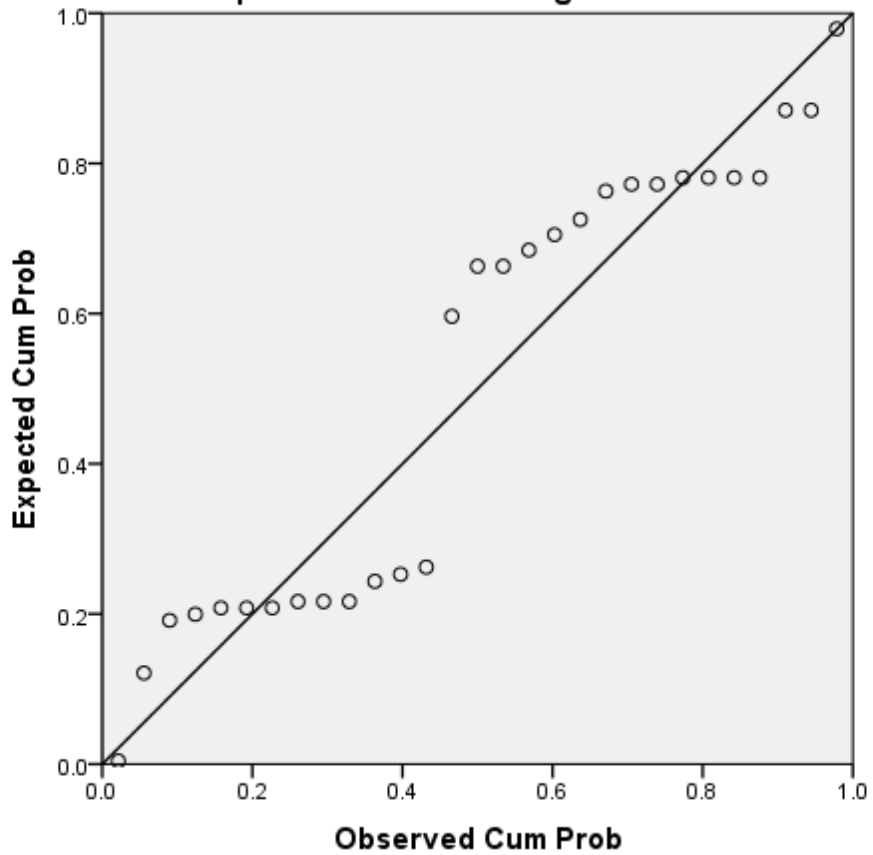


Figure 4.4: Linearity P-P plot for ROA

Linearity P-P plot is used to determine how well a variable fits to a specific distribution. In a normally distribution, the points in the P-P normal plot cluster around the horizontal line. The ROA deviation from the straight line is minimal. This indicates linear relationship of the data collected since the observations are along the line of best fit.

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: Log ROE

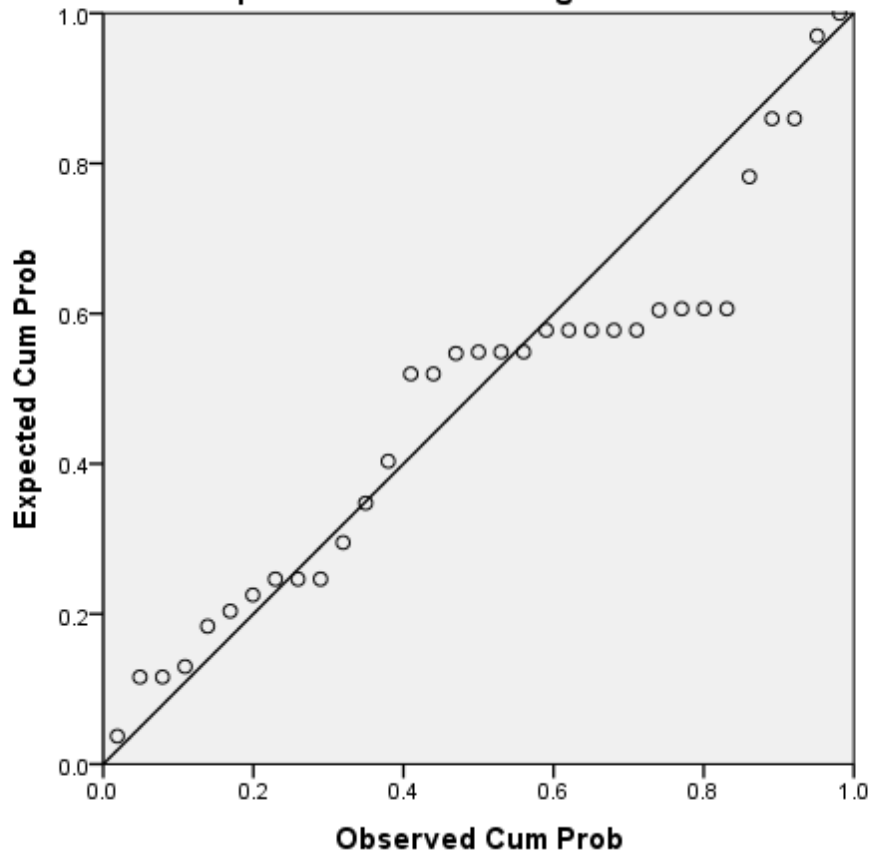


Figure 4.5: Linearity P-P plot for ROE

Figure 4.5 shows the points in the P-P normal plot cluster around the horizontal line. The observations of ROE deviation from the straight line though its minimal. This indicates normal distribution of the observed values. The data collected has linear since the observations are near the line of best fit.

Normal P-P Plot of Regression Standardized Residual
Dependent Variable: LOGFINANCIALPERFORMANCE

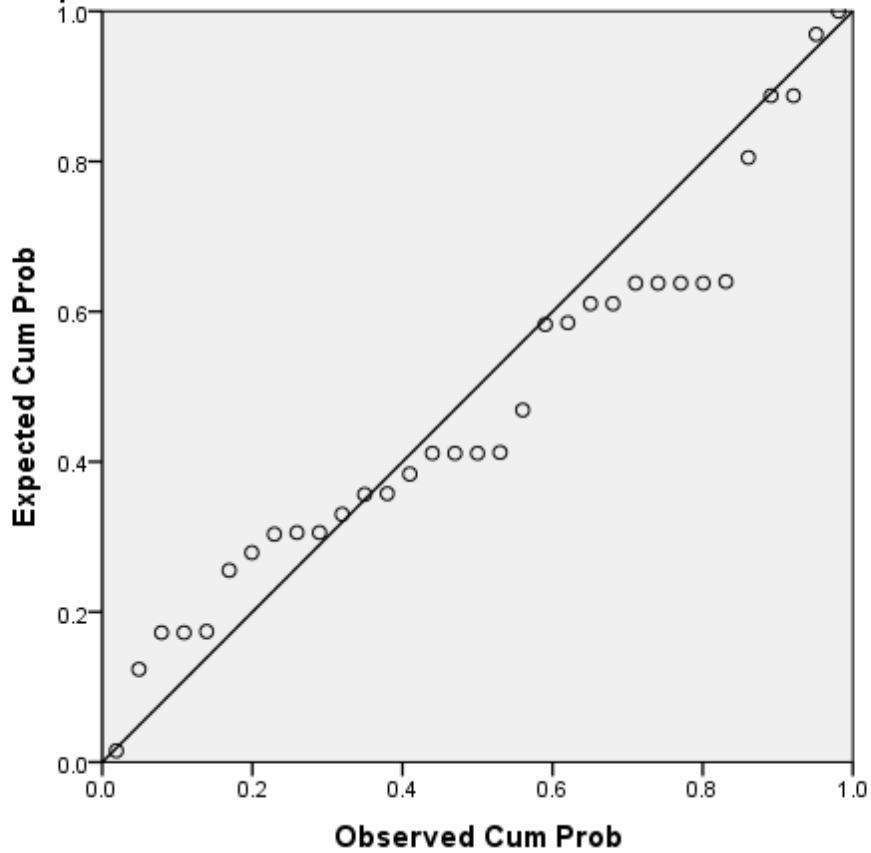


Figure 4.6: Linearity P-P plot for Financial Performance

Figure 4.6 shows the points in the P-P normal plot cluster around the horizontal line. The financial performance observations deviate from the straight line is minimal. This indicates normal distribution.

4.2.3 Autocorrelation tests

Table 4.1: Durbin Watson Tests

	Measure	Liquidity	Leverage	Firm Size	Overall
ROA	Durbin	1.924	1.803	2.242	2.156
	Watson				
ROE	Durbin	1.847	1.753	1.670	1.902
	Watson				
FP	Durbin	2.238	2.088	2.103	2.276
	Watson				

The tests for autocorrelation were conducted using the Durbin Watson tests. The results in table 4.1 showed that there was no autocorrelation since the values were neither less than zero nor above four in agreement with the observations of Saunders, (2009). The study recorded a durbin Watson of 1.924 for liquidity verses ROA, leverage had a value of 1.803 while firm size had value of 2.156 which rules out the possible of autocorrelation with the ROA. ROE recorded the following observations with various variables, 1.847 for liquidity, 1.753 for leverage and 1.670 for the firm size which this values were closer to 2 which depicts no autocorrelation in the variables and lastly financial performance with liquidity, leverage and firm size registered 2.238, 2.088 and 2.103 respectively. This implies all this variables have no correlations since all the values falls under a threshold.

4.2.4 Collinearity Tests

Table 4.2 Variance inflation Factor

	Measure	Liquidity	Leverage	Firm Size
ROA	VIF	1.00	1.00	1.00
ROE	VIF	1.00	1.00	1.00
FP	VIF	1.00	1.00	1.00

The researcher established that there was no collinearity on all the secondary data that was collected since Variance Inflation Factor (VIF) values were between 0 and 4. This is also agreeing with the observations of Saunders et al., (2009). The study recorded a variance inflation factor at 1 which was between the value of 0 and 4 which ruled out the possibility of the multicolliniarity between the variables under study.

4.3 Descriptive Statistics

The study sought to determine the effect of selected firm specific factors on the financial performance of real estate firms listed in the NSE. The study targeted the five real estate firms listed in the investment segment in the NSE. The variables are described in details in terms of mean, skewness, kurtosis and standard deviations of recorded values. Tables are used to represent the description of each variable. The descriptive statistics findings are presented in Tables 4.3 and Table 4.4.

4.3.1 Selected Firm Specific Factors

The following selected firm specific factors were used in the study: Liquidity, leverage and firm size. Table 4.3 shows the overall descriptive statistics of the selected firm specific factors over 10 years of study.

Table 4.3: Selected Firm Specific Factors Overall Results

	Mean	Standard Deviation	Kurtosis	Skewness	Minimum	Maximum	Count
Liquidity	1.74	3.49	32.04	5.47	0.14	22.04	39
Leverage	-0.32	10.88	20.73	-4.28	-56.99	11.93	39
Firm Size	9888425	14776103	5.50	2.43	82202	57243477	39
Financial Performance	66.03	314.01	34.40	5.77	-48.75	1921.48	39

The researcher sought to investigate the descriptive performance of the variables in real estate firms listed in Kenya from 2008 to 2017. From the findings, it can be noted that liquidity recorded a mean of 1.74 with a standard deviation of 3.49 while the kurtosis value recorded for liquidity was 32.04 with a skewness value of 5.47 and minimum and maximum value was 0.14 and 22.04 respectively. Leverage recorded a mean value of -0.32, the standard deviation was 10.88 while kurtosis, skewness and minimum value was 20.73, -4.28 and -56.99 respectively. This depicts a slight variation between the liquidity and the performance as shown by the standard deviation of 10.88. The firm size recorded a kurtosis value of 5.50 which depicts a positive skewness since the value was more than 2 which is the set threshold. The skewness was 2.43 with a maximum value of 82202 and the maximum value 57243477 with an observation of 39. The financial performance recorded was 66.03 with a standard deviation of 314.01 while the kurtosis value was 34.40 with a maximum value of 1921.48. The values for asymmetry and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution (George & Mallery, 2010). This implies financial performance was fluctuating as shown by the standard deviation. The findings also revealed that there has been a significant decrease in financial performance during the ten-year period. An analysis of the mean shows extreme cases of profit making companies and loss making companies. The financial statements show a turbulent sector. Therefore some of the firms have financial distress leading to the huge disparity. The results are displayed on table 4.3.

Table 4.4: Selected Firm Specific Factors Year by Year Mean

Years\Variable	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Liquidity	2.50	6.30	1.38	0.76	1.17	2.42	0.76	0.74	0.87	0.67
Leverage	0.90	3.97	2.97	2.57	3.31	2.57	-6.42	1.64	-0.11	-14.26
Firm size	5271	2776	3898	7379	6369	8950	1075	1805	1695	1731
	850	532	081	289	606	147	2654	4835	9542	7573
Financial Performance	9.46	2.43	5.96	-4.73	14.6	8.32	15.74	-6.18	10.83	6.36
					8					

The researcher also assessed the trends in selected firm specific factors from 2008 to 2017. From the findings, it can be noted liquidity recorded the highest value of 6.30 in the year 2009. It was followed by a liquidity value of 2.50 in the year 2008 and the least liquidity value was registered in the year 2017 with a value of 0.67. This means that the liquidity of the firms across the period was not constant since it recorded various values for the various years, this was as a result of the assets utilizes and debt collections by this real estate firms. Also the election influences was a result of turbulence in the liquidity of the firms. The leverage of the firm also recorded a highest value of 3.97 in the year 2009 and the minimum value of -14.26 in the year 2017. This implies also the firm leverage was not fixed since most of the firms used debt in financing their operations at the time of financial crises but when they have adequate resources to finance their operations they use equity. So the changes in the usage of the debt by the firms were a result of changes in the leverage ratio across the period of study. The firm size was also not fixed since these firms continuously acquired assets and that was why there was an observation of the increase in the firm size of the real estates firms. The firms engage in the investment ventures which increase their asset base. The findings revealed that there has been a significant fluctuation of the financial performance since the highest value recorded was 15.74 in the year 2014 and the minimum value registered was -4.73 in the year 2011. This implies the income for the firms keeps on fluctuating. The results are displayed on table 4.5.

4.3.2 Trend Analysis

The study established the trends of selected firm specific factors and financial performance of real estate firms listed in NSE for the study period (2008-2017). Average means of these variables for the 5 firms listed on NSE for the period 2008 to 2017 were used to show the trends. The trend performance of the variables showed there was an increase of liquidity from 2.50 in the year 2008 to a value of 6.30 in the year 2009 and a steady decrease to a value of 0.76 in the year 2011. The study also recorded a fluctuation of the leverage where there are slight changes from the year 2008 to the year 2013 then a sudden drop in the year 2014 to -5. This sudden drop in leverage is seen in the year 2017 to a figure of -14.26. Firm size had almost steady changes in terms of market capitalization and Total assets throughout the ten years. The mean for firm size for the year 2007 was 6.72 and the year 2017 recorded mean of 7.23. The financial performance had observation fluctuations from the highest value of 15.74 in the year 2014 followed by a value of 14.68 in the year 2012 and the lowest value registered at -6.42 in the year 2015.

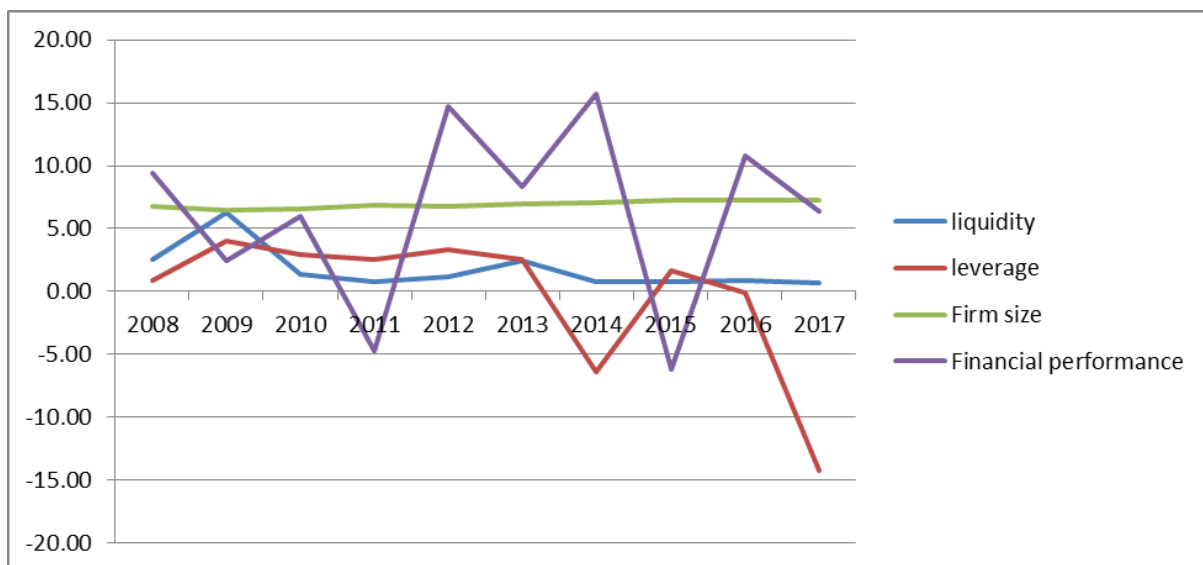


Figure 4.7: Trend Analysis

The trend performance showed that liquidity of the firms was not constant since different firms have different levels of assets. Leverage could be behaving this way due to a number of reasons for instance venturing into new business, market slow down, relaxing of financial controls and increase of market competition. The firm size was steady all through for the 10 years, this implies all the firms were investing on the assets at almost the same base which depicts the firm had investment opportunities in order to increase their financial performance. The listed real estate firms portrayed slow improvement in asset quality and liquidity management. The financial performance had high turbulence as most of the observations

were fluctuating from the highest to the lowest value. This implies in 2015 most the firms was recording losses may be as a result of high inflation rates and low consumers income while in 2014 it was recorded a positive performance as a result of availability of the investment opportunities.

4.4 Inferential Statistics

The study used inferential statistics (Pearson correlation and multiple linear regression) to analyses the research objectives.

4.4.1 Correlation Matrix

Correlation analysis was carried out to determine whether there were significance associations between the variables. Pearson’s product moment correlation coefficient (r) was used to examine the extent of correlation between the variables of study and to show the strength of the linear relationships between the variables. It ranging from -1 (showing a perfect negative linear relationship) to +1 (showing a perfect positive linear relationship), and zero indicating no relationship between the variables (Saunders & Cornett , 2003).

Table 4.5: Pearson correlation analysis of liquidity, leverage, firm size and financial performance

		Liquidity	Leverage	Firm Size	ROA	ROE
Liquidity	Pearson Correlation	1				
	Sig. (1-tailed)					
Leverage	Pearson Correlation	0.050	1			
	Sig. (1-tailed)	0.380				
Firm Size	Pearson Correlation	-0.137	0.100	1		
	Sig. (1-tailed)	0.203	0.272			
ROA	Pearson Correlation	-0.118	0.592	0.230	1	
	Sig. (1-tailed)	0.238	0.000	0.079		
ROE	Pearson Correlation	-0.087	-0.934	-0.010	-0.427	1
	Sig. (1-tailed)	0.300	0.000	0.476	0.003	

Correlation coefficients vary numerically between 0.0 and 1.0; the closer the correlation is to 1.0, the stronger the relationship between the two variables. A positive correlation means that as one variable increases, the other increases, whereas a negative correlation means that when one variable increases, the other decreases. A statistically significant correlation is indicated by a probability value of less than 0.05 (Saunders & Cornett , 2003). The main objective of the study was to determine the effect of selected firm specific factors on financial performance of real estate firms in Kenya. The study used Pearson Correlation analysis to establish the kind of relationship that exists between the variables (liquidity, leverage, firm size and bank performance). Table 4.5 shows the Pearson correlation analysis of the relationship between liquidity, leverage, firm size and financial performance. Correlation results showed that relationship between liquidity and ROA was negative and insignificant ($r=-0.118$, $p>0.05$), also liquidity and ROE was negative and insignificant ($r=-0.087$, $p>0.05$), leverage and ROA was positive and insignificant ($r=0.592$, $p>0.05$), leverage and ROE was negative and insignificant ($r=-0.934$, $p>0.05$), firm size and ROA was positive and insignificant ($r=0.230$, $p>0.05$). The correlation between the three variables was weak. If two predictor variables indicate a correlation coefficient of more than 0.50, then the problem of multi-collinearity exists and in the table 4.5, none exceeds 0.5 and hence none of them are highly correlated with each other and thus none of them was to be dropped hence, the study sought to analyse the regression analysis to establish further the magnitude of the relationships.

4.4.2 Simple Regression Analysis

The study proceed in two steps: first the regressing was done on the individual measures of financial performance that is ROA and ROE; and second, the study regressed using a composite index of ROA and ROE.

4.4.2.1 Effect of liquidity on financial performance of real estate firms listed in the NSE in Kenya

4.4.2.1.1 Relationship between Liquidity and ROA

Table 4.6: Model Summary of the relationship between Liquidity and ROA

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Change	F Change	df 1	df 2	Sig. F Change
.207 ^a	.043	.007	.629	.043	1.211	1	27	.281

a. Predictors: (Constant), Liquidity

b. Dependent Variable: ROA

Table 4.7 : ANOVA of relationship between Liquidity and ROA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.480	1	.480	1.211	.281 ^b
	Residual	10.693	27	.396		
	Total	11.172	28			

a. Dependent Variable: ROA

b. Predictors: (Constant), Liquidity

Table 4.8: Coefficients of the relationship between Liquidity and ROA

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	.549	.117		4.698	.000	.309	.789
Liquidity	-.372	.338	-.207	-1.100	.281	-1.065	.322

a. Dependent Variable: ROA

The model summary (Table 4.6) shows an R square of 0.043, P value of 0.281 and the analysis of variance (Table 4.7) shows F statistics of 1.211. This implies that liquidity influences ROA to the extent of 4.3%. Other factors not included account for 95.7%. The

above results are not statistically significant as confirmed by P value of 0.281 being greater than 0.05 and F statistical value of 1.211 being less than F critical value of 3.84.

The coefficients of the model are a constant of 0.549 with a gradient of -0.372 which are demonstrated on Table 4.8. This is as:

$$Y = 0.549 - 0.372 \text{ Liquidity}$$

The findings of this study corroborated with existing literature of Mahfoudh (2013) who found that liquidity had a positive effect on financial performance of the firms listed in the agricultural sector at the Nairobi Securities Exchange (NSE).

4.4.2.1.2 The relationship between Liquidity and ROE

Table 4.9: Model Summary of the relationship between Liquidity and ROE

R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics F Change	df1	df2	Sig. F Change
.518 ^a	.269	.245	.718	.269	11.395	1	31	.002

a. Predictors: (Constant), Liquidity

b. Dependent Variable: ROE

Table 4.10: ANOVA of the relationship between Liquidity and ROE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.881	1	5.881	11.395	.002 ^b
	Residual	15.998	31	.516		
	Total	21.879	32			

a. Dependent Variable: ROE

b. Predictors: (Constant), Liquidity

Table 4.11 : Coefficients of the relationship between Liquidity and ROE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	.965	.128		7.521	.000	.703	1.226
Liquidity	-1.056	.313	-.518	-3.376	.002	-1.694	-.418

a. Dependent Variable: ROE

In the model summary (Table 4.9) shows an R squared of 0.269, P value of 0.002 and the analysis of variance (Table 4.10) shows F statistical of 11.395. This implies that liquidity influences ROE to the extent of 26.9%. Other factors not included account for 73.1%. The above results are statistically significant as confirmed by P value of 0.002 being less than 0.05 and F statistical value of 11.395 being greater than F critical value of 3.84.

The coefficients of the model as demonstrated on Table 4.11 are a constant of 0.965 with a gradient of -1.056. This is as:

$$Y = 0.965 - 1.056 \text{ Liquidity}$$

The findings of this study corroborated with existing literature such as Sanghani (2014) who found that liquidity positively affects the financial performance of non-financial companies listed at the NSE.

4.4.2.1.3 Relationship between Liquidity and Financial Performance

Table 4.12 : Model Summary of the relationship between Liquidity and Financial Performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Change	F Change	df1	df2	Sig. F Change
1	.509 ^a	.259	.235	.77101	.259	10.852	1	31	.002

a. Predictors: (Constant), Liquidity

b. Dependent Variable: Financial Performance

Table 4.13: ANOVA of the relationship between Liquidity and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.451	1	6.451	10.852	.002 ^b
	Residual	18.428	31	.594		
	Total	24.879	32			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Liquidity

Table 4.14 : Coefficients of the relationship between Liquidity and Financial Performance

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
Constant	.839	.138		6.094	.000	.558	1.120
Liquidity	-1.106	.336	-.509	-3.294	.002	-1.791	-.421

a. Dependent Variable: Financial Performance

In the model summary (Table 4.12) shows an R squared 0.259, P value of 0.002 and the analysis of Variance (Table 4.13) shows F statistical of 10.852. This is shown on Tables 4.15 and 4.16. This implies that liquidity influences financial performance to the extent of 25.9%. Other factors not included account for 74.1%. The results are statistically significant as confirmed by P value of 0.002 being lesser than 0.05 and F statistical value of 10.852 being greater f critical value of 3.84.

The coefficients of the model as in Table 4.14 are a constant of 0.839 with a gradient of -1.106. This is as: $Y = 0.839 - 1.106 \text{ Liquidity}$.

The findings of this study corroborated with existing literature such as Ehiedu (2014) which found that liquidity had a significant positive correlation with profitability.

4.4.2.2 Effect of Leverage on Financial performance of real estate firms listed in the NSE in Kenya

4.4.2.2.1 Relationship between Leverage and ROA

Table 4.15: Model Summary of the relationship between Leverage and ROA

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.133 ^a	.018	-.019	.638	.018	.489	1	27	.490

a. Predictors: (Constant), Leverage.

b. Dependent Variable: ROA

Table 4.16 : ANOVA of the relationship between Leverage and ROA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.199	1	.199	.489	.490 ^b
	Residual	10.974	27	.406		
	Total	11.172	28			

a. Dependent Variable: ROA

b. Predictors: (Constant), LEVERAGE

Table 4.17: Coefficients of the relationship between Leverage and ROA

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
Constant	.541	.119		4.532	.000	.296	.786
Leverage	.327	.467	.133	.700	.490	-.631	1.284

a. Dependent Variable: ROA

In the model summary (Table 4.15) shows an R square of .018, P value of 0.49 and the analysis of variance (Table 4.16) shows F statistical of 0.489. This is shown on Table 4.19 and Table 4.20. This implies that Leverage influences ROA to the extent of 1.8%. Other

factors not included account for 98.2%. The above results are not statistically significant as confirmed by P value of 0.49 being greater than 0.05 and F statistical value of 0.489 being less than F critical value of 3.84.

The coefficients of the model as demonstrated on Table 4.17 are a constant of 0.541 with a gradient of 0.327. This is as:

$$Y = 0.541 + 0.327 \text{ Leverage}$$

4.4.2.2 Relationship between Leverage and ROE

Table 4.18 : Model Summary of the relationship between Leverage and ROE

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.273 ^a	.075	.045	.808	.075	2.503	1	31	.124

a. Predictors: (Constant), Leverage

b. Dependent Variable: ROE

Table 4.19: ANOVA of the relationship between Leverage and ROE

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1.635	1	1.635	2.503	.124 ^b
Residual	20.244	31	.653		
Total	21.879	32			

a. Dependent Variable: ROE

b. Predictors: (Constant), LEVERAGE

Table 4.20: Coefficients of the relationship between Leverage and ROE

Model		Unstandardized		Standardized	t	Sig.	95.0%	
		Coefficients		Coefficients			Confidence	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	Constant	1.022	.143		7.154	.000	.730	1.313
	Leverage	.886	.560	.273	1.582	.124	-.256	2.028

In the model summary (Table 4.18) shows an R square of 0.075, P value of 0.124 and the analysis of variance (Table 4.19) shows F statistical of 2.503. This is shown on Table 4.23 and 4.24. This implies that leverage influences ROE to the extent of 7.5%. Other factors not included account for 92.5%. The above results are not statistically significant as confirmed by P value of 0.124 being greater than 0.05 and F statistical value of 2.503 being less than F critical value of 3.84.

The coefficients of the above model as demonstrated on Table 4.20 are a constant of 1.022 with a gradient of 0.886. This is as:

$$Y = 1.022 + 0.886 \text{ Leverage}$$

4.4.2.2.3 Relationship between Leverage and Financial Performance

Table 4.21: Model Summary of the relationship between Leverage and Financial Performance

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.229 ^a	.052	.022	.87211	.052	1.710	1	31	.201

a. Predictors: (Constant), Leverage

b. Dependent Variable: Financial Performance

Table 4.22 : ANOVA of the relationship between Leverage and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.301	1	1.301	1.710	.201 ^b
	Residual	23.578	31	.761		
	Total	24.879	32			

a. Dependent Variable: FINANCIALPERFORMANCE

b. Predictors: (Constant), LEVERAGE

Table 4.23 : Coefficients of the relationship between Leverage and Financial Performance

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
Constant	.905	.154		5.870	.000	.590	1.219
Leverage	.790	.604	.229	1.308	.201	-.442	2.023

In the model summary (Table 4.21) shows an R square of 0.052, P value of 0.201 and analysis of variance (Table 4.22) shows F statistical of 1.710. This is shown on Table 4.27 and 4.28. This implies that leverage influences financial performance to the extent of 5.2%. Other factors not included account for 94.8%.The above results are not statistically significant as confirmed by P value of 0.201 being greater than 0.05 and F statistical value of 1.710 being less than f critical value of 3.84.

The coefficients of the above model as demonstrated on Table 4.23 are a constant of 0.905 with a gradient of 0.790. This is as:

$$Y = 0.905 + .0790 \text{ Leverage.}$$

The findings of this study corroborated with existing literature such as Ali (2014) whose findings indicated that large firms have a positive insignificant relationship between financial leverage and firm performance.

4.4.2.3 Effect of Firm Size on Financial Performance of Real Estate Firms in Kenya

4.4.2.3.1 Relationship between Firm Size and ROA

Table 4.24 : Model Summary of the relationship between Firm Size and ROA

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.347 ^a	.121	.088	.603	.121	3.700	1	27	.065

a. Predictors: (Constant), Firm Size

b. Dependent Variable: ROA

Table 4.25 : ANOVA of the relationship between Firm Size and ROA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.346	1	1.346	3.700	.065 ^b
	Residual	9.826	27	.364		
	Total	11.172	28			

a. Dependent Variable: ROA

b. Predictors: (Constant), FIRMSIZE

Table 4.26 : Coefficients of the relationship between Firm Size and ROA

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-1.378	1.010		-1.365	.183	-3.450	.693
Firm Size	.294	.153	.347	1.923	.065	-.020	.608

In the model summary (Table 4.24) shows an R square of 0.121, P value of 0.065 and the analysis of variance (Table 4.25) shows F statistical of 3.700. This is shown on Tables 4.31 and 4.32. This implies that firm size influences ROA to the extent of 12.1%. Other factors not included account for 87.9%. The above results are not statistically significant as confirmed by

P value of 0.065 being greater than 0.05 and F statistical value of 3.700 being less than F critical value of 3.84.

The coefficients of the above model as demonstrated on Table 4.26 are a constant of -1.378 with a gradient of 0.294. This is a as:

$$Y = -1.378 + 0.294 \text{ Firm Size}$$

4.4.2.3.2 Relationship between Firm size and ROE

Table 4.27 : Model Summary of the relationship between Firm size and ROE

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.163 ^a	.027	-.005	.829	.027	.848	1	31	.364

a. Predictors: (Constant), FIRMSIZE

b. Dependent Variable: ROE

Table 4.28 : ANOVA of the relationship between Firm size and ROE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.583	1	.583	.848	.364 ^b
	Residual	21.296	31	.687		
	Total	21.879	32			

a. Dependent Variable: ROE

b. Predictors: (Constant), FIRMSIZE

Table 4.29 : Coefficients of the relationship between Firm size and ROE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
(Constant)	-.192	1.367		-.140	.88	-2.980	2.597

Firm Size	.191	.208	.163	.921	.36	-.232	.615
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In the model summary (Table 4.27) shows an R square 0.027, P value of 0.364 and the analysis of variance (Table 4.28) shows F statistical of 0.848. This is shown on Table 4.35 and 4.36. This implies that firm size influences ROE to the extent of 2.7%. Other factors not included account for 97.3%. The above results are not statistically significant as confirmed by P value of 0.364 being greater than 0.05 and F statistical value of 0.848 being less than F critical of 3.84.

The coefficients of the model as demonstrated on table 4.29 are a constant of - 0.192 with a gradient of 0.191. This is as:

$$Y = -0.192 + 0.191\text{Firm size.}$$

4.4.2.3.3 The relationship between Firm size and financial performance

Table 4.30 : Model Summary of the relationship between Firm size and Financial Performance

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.176 ^a	.031	.000	.88182	.031	.994	1	31	.326

a. Predictors: (Constant), Firm size

b. Dependent Variable: Financial performance

Table 4.31 : ANOVA of the relationship between Firm size and Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.773	1	.773	.994	.326 ^b
	Residual	24.106	31	.778		
	Total	24.879	32			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), FIRMSIZE

Table 4.32 : Coefficients of the relationship between Firm size and Financial Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	-.503	1.454		-.346	.732	-3.469	2.464
Firm Size	.220	.221	.176	.997	.326	-.230	.671

In the model summary (Table 4.30) shows an R square of 0.031, P value of 0.326 and the analysis of variance (Table 4.31) shows F statistical of 0.994. This is shown on tables 4.39 and 4.40. This implies that firm size influences financial performance to the extent of 3.1%. Other factors not included account for 96.9%. The above results are not statistically significant as confirmed by p value of 0.326 being greater than 0.05 and F statistical value of 0.994 being less than F critical value of 3.84.

The coefficients of the model as demonstrated on Table 4.32 are a constant of -0.503 with a gradient of 0.220. This is as:

$$Y = -0.503 + 0.220 \text{ Firm size.}$$

4.4.3 Multiple Regression

4.4.3.1 Combined Effect of Liquidity, Leverage and Firm Size on the Financial Performance of Real Estate firms in Kenya

4.4.3.1.1 Relationship between Combined inferential statistics and ROA

Table 4.33: Model Summary of the relationship between Combined inferential statistics and ROA

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Change	F Change	df1	df2	Sig. F Change
.380 ^a	.144	.042	.618	.144	1.406	3	25	.264

a. Predictors: (Constant), Firm Size, Leverage, Liquidity

b. Dependent Variable: ROA

Table 4.34 : ANOVA of the relationship between Combined inferential statistics and ROA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.613	3	.538	1.406	.264 ^b
	Residual	9.560	25	.382		
	Total	11.172	28			

a. Dependent Variable: ROA

b. Predictors: (Constant), Firm size, Leverage, Liquidity

Table 4.35: Coefficients of Combined inferential statistics and ROA

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-1.209	1.068		-1.132	.268	-3.408	.990
	LIQUIDITY	-.195	.350	-.109	-.558	.582	-.917	.526
	LEVERAGE	.228	.463	.093	.492	.627	-.726	1.182
	FIRMSIZE	.267	.162	.315	1.649	.112	-.066	.600

In the model summary (Table 4.33) shows an R squared of 0.144, P value of 0.264 and the variance of analysis (Table 4.34) shows F statistical of 1. 406. This is shown on Table 4.43 and 4.44. This implies that the combined effect of liquidity, leverage and firm size influences ROA to the extent of 14.4%. Other factors not included account for 85.6%. The above results are not statistically significant as confirmed by P value of 0.264 being greater than 0.05 and F statistical value of 1.406 being less than F critical value of 3.84.

The coefficients of the model as demonstrated on Table 4.35 are a constant of -1.209 with gradients of -0.195, 0.228 and 0.267. This is as:

$$Y = -1.209 - 0.195 \text{ Liquidity} + 0.228 \text{ Leverage} + 0.267 \text{ Firm size}$$

4.4.3.1.2 Relationship between Combined inferential statistics and ROE

Table 4.36: Model Summary of the Combined inferential statistics and ROE

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Change	F Change	df1	df2	Sig. F Change
.551 ^a	.303	.231	.725	.303	4.207	3	29	.014

a. Predictors: (Constant), Firm size, Leverage, Liquidity

b. Dependent Variable: ROE

Table 4.37: ANOVA of the relationship between Combined inferential statistics and ROE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.634	3	2.211	4.207	.014 ^b
	Residual	15.245	29	.526		
	Total	21.879	32			

a. Dependent Variable: ROE

b. Predictors: (Constant), FIRMSIZE, LEVERAGE, LIQUIDITY

Table 4.38: Coefficients of the relationship between Combined inferential statistics on ROE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error				Lower Bound	Upper Bound
	(Constant)	.238	1.203			Beta	.198
Liquidity	-.956	.327	-.469	-2.92	.007	-1.624	-.287
LEVERAGE	.532	.516	.164	1.032	.310	-.522	1.587
FIRMSIZE	.109	.183	.093	.593	.558	-.266	.484

In the model summary (Table 4.36) shows an R squared of 0.303, P value of 0.014 and the variance of analysis (Table 4.37) shows F statistical of 4. 207. This is shown on Table 4.47

and 4.48. This implies that the combined effect of liquidity, leverage and firm size influences ROE to the extent of 30.3%. Other factors not included account for 69.7%. The above results are statistically significant as confirmed by P value of 0.014 being less than 0.05 and F statistical value of 4.207 being greater than F critical value of 3.84.

The coefficients of the model as demonstrated by Table 4.38 are a constant of 0.238 with gradients of -0.956, 0.532 and 0.109. This is as:

$$Y = 0.238 - 0.956 \text{ Liquidity} + 0.532 \text{ Leverage} + 0.109 \text{ Firm size}$$

4.4.3.1.3 Relationship between Combined Inferential Statistics and Overall Financial Performance

Table 4.39 Model Summary of the relationship between Combined Inferential Statistics and Overall Financial Performance

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
				R Square Change	F Change	df1	df2	Sig. F Change
.533 ^a	.285	.211	.78346	.285	3.844	3	29	.020

a. Predictors: (Constant), Firm size, Leverage, Liquidity

b. Dependent Variable: Financial Performance

Table 4.40 ANOVA of the relationship between Combined Inferential Statistics and Overall Financial Performance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.078	3	2.359	3.844	.020 ^b
	Residual	17.800	29	.614		
	Total	24.879	32			

a. Dependent Variable: FINANCIALPERFORMANCE

b. Predictors: (Constant), FIRMSIZE, LEVERAGE, LIQUIDITY

Table 4.41: Coefficients of the relationship between Combined Inferential Statistics and Overall Financial Performance

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
Constant	-.054	1.300		-.041	.967	-2.71	2.605
Liquidity	-1.016	.353	-.468	-2.879	.007	-1.73	-.294
Leverage	.412	.557	.119	.739	.466	-.72	1.551
Firm size	.135	.198	.108	.681	.501	-.27	.540

In the model summary (Table 4.39) shows an R squared of 0.285, P value of 0.020 and the variance of analysis (Table 4.40) shows F statistical of 3. 844. This is shown on Table 4.51 and 4.52. This implies that the combined effect of liquidity, leverage and firm size influences financial performance to the extent of 28.5%. Other factors not included account for 71.5%. The above results are statistically significant as confirmed by P value of 0.02 being less than 0.05 and F statistical value of 3.844 being greater than F critical value of 3.84.

The coefficients of the model as demonstrated on table 4.41 are a constant of 0.238 with gradients of -0.956, 0.532 and 0.109. This is as:

$$Y = -0.054 - 1.016 \text{ Liquidity} + 0.412 \text{ Leverage} + 0.135 \text{ Firm size}$$

Table 4.42: Summary Hypotheses Testing results

Hypothesis	Panel P Value	Panel Conclusion ROA	Panel P Value ROE	Panel Conclusion ROE	Panel Performance	P	Overall Conclusion
H ₀₁ :Liquidity	0.281	Insignificant	0.002	Significant	0.002		Significant
H ₀₂ :Leverage	0.490	Insignificant	0.124	Insignificant	0.201		Insignificant
H ₀₃ :Firm Size	0.065	Significant	0.364	Insignificant	0.326		Insignificant
H ₀₄ :Combined	0.264	Insignificant	0.014	Significant	0.020		Significant

4.5 Hypotheses Testing Results

Hypothesis testing is a process by which the researcher infers the result of sample data on the larger population based on a presupposition made prior to commencement of research

(Gujarati & Porter, 2003). The researcher performed hypothesis testing by determining statistical significance of the coefficients of explanatory variables. Test-of-significance method was done to verify the truth or falsity of a null hypothesis by using the sample results. This was done by using the two-tailed t-test statistic and the corresponding p -values at 5% levels.

H₀₁: Liquidity has no statistically significant effect on the financial performance of real estate firms in Kenya

The analysis revealed liquidity has an insignificant negative effect with ROA of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p>0.05$. Liquidity also has a significant negative effect with ROE of listed real estate firms at 5% significance level. This was also evidenced by the p -value of $p<0.05$. Lastly, liquidity has a significant negative effect with financial performance of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p<0.05$. The decision was to reject the null hypothesis with 95% confidence and conclude that liquidity had a significant effect on the financial performance of listed real estate firms in Kenya. ($f=10.852$, $p<0.002$).

H₀₂: Leverage has no statistically significant effect on the financial performance of real estate firms in Kenya

The analysis revealed leverage has an insignificant positive effect with ROA of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p>0.05$. Leverage also has an insignificant positive effect with ROE of listed real estate firms at 5% significance level. This was also evidenced by the p -value of $p>0.05$. Lastly, leverage has an insignificant positive effect on financial performance of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p>0.05$. The decision was to fail to reject the null hypothesis with 95% confidence and conclude that leverage had no statistically significant effect on the financial performance of listed real estate firms in Kenya. ($f=1.710$, $p=0.201$).

H₀₃: Firm size has no statistically significant effect on the financial performance of real estate firms in Kenya

The analysis revealed firm size has a significant positive effect with ROA of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p<0.05$. Firm size also has an insignificant positive effect with ROE of listed real estate firms at 5% significance level. This was also evidenced by the p -value of $p>0.05$. Lastly, firm size has an insignificant

positive effect on financial performance of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p > 0.05$. The decision was to fail to reject the null hypothesis with 95% confidence and conclude that firm size had no statistically significant effect on the financial performance of listed real estate firms in Kenya. ($f=0.994$, $p=0.326$).

H₀₄: Liquidity, leverage and firm size have no significant effect on financial performance of real estate firms in Kenya

The analysis revealed liquidity, leverage and firm size has no significant effect on ROA of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p > 0.05$. Liquidity, leverage and firm size has a significant effect on ROE of listed real estate firms at 5% significance level. This was also evidenced by the p -value of $p < 0.05$. Lastly, liquidity, leverage and firm size has a significant effect on financial performance of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p < 0.05$. The decision was to reject the null hypothesis with 95% confidence and conclude that liquidity, leverage and firm size had a statistically significant effect on the financial performance of listed real estate firms in Kenya. ($f=3.844$, $p=0.02$).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the study giving the implications of the findings based on the research objectives, conclusions and recommendations. The purpose of the study was to determine the effect of selected firm specific factors on the financial performance of real estate firms listed in Nairobi Securities exchange in Kenya.

5.2 Summary of the findings

The aim of the study was to determine the effect of selected firm specific factors on the financial performance of listed real estate firms. The study intended to enhance understanding on the issue by establishing how the financial performance of real estate firms is influenced by liquidity, leverage and firm size. To achieve this objective, all the five (5) listed firms under the investment segment of the NSE for the period 2008-2017 were studied. Data was analyzed using descriptive and inferential statistics ranging from 2008 to 2017.

5.2.1 Effect of liquidity on the Financial Performance of Real Estate Firms in Kenya

The first objective of the study was to evaluate the effect of liquidity on the financial performance of real estate firms listed in the Nairobi Securities Exchange in Kenya. Based on the results, it was revealed that liquidity has an insignificant negative effect with ROA at 5% significance level and P value of 0.281 as shown in table 4.6. It was also revealed that liquidity has a significant negative effect with ROE at 5% significance level and P value of 0.002 as shown in table 4.9. Further to this, it was established that liquidity is negatively correlated with financial performance as shown in table 4.12 by -0.509. Furthermore, the study indicates that there is a statistically significant relationship between liquidity and financial performance $P=0.002$ ($P<0.05$). The analysis revealed liquidity has an insignificant negative effect with ROA of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p>0.05$.

5.2.2 Effect of leverage on the Financial Performance of Real Estate Firms in Kenya

The second objective of the study was to determine the effect of leverage on the financial performance of real estate firms listed in the Nairobi Securities Exchange in Kenya. Based on the results, it was revealed that leverage has an insignificant positive effect with ROA at 5% significance level and a P value of 0.490 as shown in table 4.15. It was also revealed that leverage has an insignificant positive effect with ROE at 5% significance level and a P value of 0.124 as shown in table 4.18. Further to this, it was established that leverage is positively correlated with financial performance as shown in table 4.23 by 0.229. Furthermore, the study indicates that there is no statistically significant relationship between leverage and financial performance $P=0.201$ ($P>0.05$). The analysis revealed leverage has an insignificant positive effect with ROA of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p>0.05$.

5.2.3 Effect of firm size on the Financial Performance of Real Estate Firms in Kenya

The third objective of the study was to determine the effect of firm size on the financial performance of real estate firms listed in the Nairobi Securities Exchange in Kenya. Based on the results, it was revealed that firm size has an insignificant positive effect with ROA at 5% significance level and a P value of 0.065 shown in table 4.24. It was also revealed that firm size has an insignificant positive effect on ROE at 5% significance level and a P value of 0.364 shown in table 4.27. Further to this, it was established that firm size is positively correlated with financial performance as shown in table 4.32 by 0.176. Furthermore, the study indicates that there is no statistically significant relationship between firm size and financial performance $P=0.326$ ($P>0.05$). The analysis revealed firm size has a significant positive effect with ROA of listed real estate firms at 5% significance level. This was evidenced by the p -value of $p<0.05$.

5.2.3 Effect of liquidity, leverage and firm size on the Financial Performance of Real Estate Firms in Kenya

The fourth objective of the study sought to determine the combined effect (liquidity, leverage and firm size) on the Financial Performance of Real Estate Firms in Kenya. Based on the results, it was revealed that liquidity, leverage and firm size has an insignificant effect on ROA at 5% significant level and a P value of 0.264 shown in table 4.33. It was also revealed that liquidity, leverage and firm size has a significant effect on ROE at 5% level of significance and a P value of 0.014 shown in table 4.36. Furthermore the study indicates that

liquidity, leverage and firm size has a significant effect on financial performance of listed real estate firms at 5% significance level and a P value of 0.02 shown in table 4.39.

5.3 Conclusions

The researcher used secondary data which were totally independent of each other. These conclusions were made on an objective-by-objective basis.

The first objective of the study was to determine the effect of liquidity on the financial performance of real estate firms in Kenya. Liquidity and financial performance are negatively correlated; the study indicates that there is a statistical significance relationship between liquidity and financial performance. Furthermore, these findings differed with those of Mahfoudh (2013) who examines whether selected firm characteristics affect financial performance and found that liquidity and financial performance were positively correlated. The findings are in contrast since the study was conducted on manufacturing firms in the NSE while this study was conducted on real estates.

The second objective of the study was to determine the effect of leverage on the financial performance of real estate firms in Kenya. Leverage and financial performance are positively correlated. It also shows that there is no statistical significance relationship between leverage and financial performance. These findings concur with those of Ali (2014), who conducted a study on the impact of financial leverage on financial performance of firms and reveals that there is a positive insignificant relationship between financial leverage and financial performance.

The third objective of the study was to determine the effect of firm size and financial performance of real estate firms in Kenya. Firm size and financial performance are positively correlated and there is no statistical significance relationship between firm size and financial performance of firms. This finding concur with those of Audax (2018), who examined the factors which affect firm performance of firms and found that leverage and financial performance were positively correlated. Also Liargovas & Skandalis (2008) found that leverage is positively associated with financial performance of firms.

The fourth objective of the study sought to determine the combined effect (liquidity, leverage and firm size) on the Financial Performance of Real Estate Firms in Kenya. The study concludes that liquidity, leverage and firm size has no significant effect on ROA of listed real

estate firms. Leverage and firm size has a significant effect on ROE of listed real estate firms and liquidity, leverage and firm size has a significant effect on financial performance of listed real estate firms at.

5.4 Recommendations

The study recommends that real estate firms should also innovate new ways of managing their liquidity with the aim of enhancing its influence on financial performance. In particular, the manager of the listed real estate firms in Kenya should ensure that their firms have adequate liquidity levels to ensure that they can meet any contingencies and to improve their firms' financial performance. But liquidity level should not be too high to lead the firm into missing investment opportunities.

The study recommends that real estate firms be willing to increase their debt level as it is the only way they will become more profitable hence survive in the market. Particularly, the managers of the real estate firms listed at the NSE should employ an optimal debt level which will not increase the firm's performance due to the positive relationship between leverage and financial performance.

Finally, real estate firms in Kenya should invest more of their resources towards increasing their asset base so to ensure they attain desired asset base that would maximize their profitability. Specifically, the managers of the listed real estate firms should focus on growing their firms to ensure that they enjoy the economies of scale associated with large firms, also to attract good management thus to improve their financial performance.

5.5 Recommendations for Further Studies

The scope of this study was limited to listed real estate firms and did not cover unlisted real estate firms; therefore the study recommends further research to be carried out on unlisted real estate firms to enable further understanding of the effects of selected firm specific factors on financial performance of firms. This study looked at the factors affecting financial performance among real estate firms listed in NSE, Kenya. The study focused on three determinants of financial performance namely firm size, leverage, and liquidity which only contributed to 14.4% on financial performance. Thus further research may focus on other determinants of financial performance such as asset structure, firm age among others. The study was limited to the effect of selected firm specific factors on financial performance of

real estate firms. The study therefor recommends that further research focuses on other industries.

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APPENDIXES

Appendix I: Field Data collection form

	ROA	ROE	Financial Performance	DEBT RATIO	DEBT EQUITY RATIO	INTEREST COVER AGE RATIO	LEVERAGE	CURRENT RATIO	ACID TEST RATIO	Liquidity	Market capitalisation
2008	10.65966105	10.74902369	10.70434237	0.008	0.008	-	0	4.57	4.57	4.57	13,748,795.75
2009	4.766863132	4.958492142	4.862677637	0.039	0.040	36	12	0.43	0.43	0.43	5,637,006.26
2010	13.24807221	13.92227278	13.5851725	0.048	0.051	25	8	1.35	1.35	1.35	9,437,173.20
2011	18.63487247	23.98046442	21.30766845	0.223	0.287	17	6	0.33	0.33	0.33	13,006,360.50
2012	10.28212088	11.84519803	11.06365946	0.132	0.152	9	3	0.91	0.91	0.91	8,684,018.10
2013	13.23386398	18.39326863	15.8135663	0.281	0.390	10	4	5.19	5.19	5.19	13,242,295.80
2014	10.32316549	15.07125026	12.69720788	0.315	0.460	7	3	0.14	0.14	0.14	24,288,633.00
2015	10.9958182	20.60052477	15.79817149	0.466	0.873	10	4	0.35	0.35	0.35	42,255,567.00
2016	12.74462441	22.99591461	17.87026951	0.446	0.804	11	4	0.63	0.63	0.63	30,610,332.00
2017	9.402313553	16.79722225	13.0997679	0.440	0.786	10	4	0.53	0.53	0.53	22,957,749.00
2009	-8.606238291	-8.699421432	-8.652829862	0.011	0.011	-	0	22.04	22.04	22.04	-
2010	1.523654992	4.236444334	2.880049663	0.640	1.780	-	1	2.64	0.69	1.67	-
2011	-8.338037134	-89.16093153	-48.74948433	0.906	9.693	(4)	2	0.74	0.06	0.40	-
2012	43.40407423	38.81811392	41.11109407	8.835	7.901	5	7	0.97	0.13	0.55	-
2013	2.631141846	23.75480959	13.19297572	0.889	8.028	1	3	1.09	0.11	0.60	2,391,034
2014	-10.0999245	935.2681675	462.5841215	1.011	(93.602)	11	(27)	0.98	0.05	0.51	1,661,566
2015	0.240840997	2.570741313	1.405791155	0.906	9.674	(5)	2	1.18	0.19	0.69	587,627
2016	-4.286451107	80.15435344	37.93395117	1.053	(19.699)	(2)	(7)	0.81	0.03	0.42	486,312
2017	-4.051852818	46.33147941	21.1398133	1.087	(12.435)	(4)	(5)	0.79	0.02	0.40	567,364

Appendix II: List of all real estate firms listed in the Nairobi Securities Exchange

Serial No.	Firms
1.	Olympia Capital Holdings Ltd
2.	Centum Investment Co. Ltd
3.	Trans-Century Ltd
4.	Home Afrika Ltd
5.	Kurwitu ventures

Source: Nairobi Securities Exchange (2020)

Appendix III: Research Permit


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